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# FOURTEENTH ANNUAL REPORT

OF THE

# STATE INSPECTOR

OF

# COAL MINES

1926



DENVER, COLORADO  
BATES MANUFACTURING COMPANY  
1927



FOURTEENTH  
ANNUAL REPORT  
OF THE  
STATE INSPECTOR  
OF  
COAL MINES

*1926*



DENVER, COLORADO  
EAMES BROTHERS, PRINTERS  
1927

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1926

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## PERSONNEL OF THE COAL MINE INSPECTION DEPARTMENT

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JAMES DALRYMPLE, Chief Inspector.....	Denver, Colo.
W. M. LAURIE, Deputy Inspector.....	Trinidad, Colo.
FINLAY MCCALLUM, Deputy Inspector.....	Aguilar, Colo
GEORGE C. DALRYMPLE, Deputy Inspector.....	Walsenburg, Colo.
JAMES W. GRAHAM, Deputy Inspector.....	Lafayette, Colo.
HUGO H. MACHIN, Deputy Inspector.....	Denver, Colo.
ADA R. TIBBITS, Chief Clerk.....	Denver, Colo.
MAX M. GREENWALD, Assistant Clerk.....	Denver, Colo.

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## FIELD FORCE AND DISTRICTS

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W. M. LAURIE, 512 Ash St., Trinidad, Colo.....	District No. 1
All mines in Las Animas County, except those listed in District No. 2.	
FINLAY MCCALLUM, Box 334, Aguilar, Colo.....	District No. 2
Includes the following mines in Huerfano County: Bunker Hill, Ideal, Leader No. 2, Leader No. 4, Lester, Cameron, Pryor, Ravenwood, Torrid, and the following mines in Las Animas County: Berwind, Brodhead, Cass, Delagua, Empire, Greenville, Jewel, Crestone, Ludlow, Mutual, Rapson, Southwestern, Tabasco, Wellington, Royal, Fawcett, and Kenneth.	
GEORGE C. DALRYMPLE, Box 645, Walsenburg, Colo.....	District No. 3
Includes the following mines in Huerfano County: Reli- ance, Oakdale, Gordon, Sunnyside, Black Hills, Vesta, Maitland, Pictou, Walsen-Robinson, Fern, Alamo, Calumet No. 1, Calumet No. 2, Toltec, Caddell, Kebler No. 2, Pacific and Barbour, and all mines in Fremont County.	
JAMES W. GRAHAM, Box 373, Lafayette, Colo.....	District No. 4
Includes mines in the following counties: Adams, Boul- der, El Paso, Jackson, Garfield, Gunnison, Mesa, Montrose, Ouray, Pitkin, and Rio Blanco.	
HUGO H. MACHIN, 720 13th St., Denver, Colo.....	District No. 5
Includes mines in the following counties: Archuleta, El- bert, Jefferson, La Plata, Moffat, Montezuma, Routt and Weld.	

## LETTER OF TRANSMITTAL

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Denver, Colorado, April 1, 1927.

To His Excellency,

WILLIAM H. ADAMS,

Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 27 of an Act entitled "Coal Mining Laws," the Fourteenth Annual Report of this Department.

The period covered began January 1 and ended December 31, 1926.

Respectfully,

JAMES DALRYMPLE,  
State Inspector of Coal Mines.

# UNION CARBIDE

## For Miners Lamps

### World's Best Quality---Highest Gas Yield

THE PRODUCT OF THE ORIGINATORS AND DEVELOPERS  
OF THE CARBIDE AND ACETYLENE INDUSTRY.

Uniform, sustained quality assured by more than a quarter of a century of experience in selecting raw materials, and in perfecting laboratory practice and works processes.



**UNION CARBIDE**  
PACKED IN  
BLUE AND GRAY DRUMS  
CAPACITY 100 LBS.

The constant, dependable quality compels recognition of the economies which go with it.

Union Carbide will keep for years in the original package without deterioration.

OUR REMARKABLE NATION-WIDE SERVICE AND DISTRIBUTING SYSTEM MAKES UNION CARBIDE QUICKLY AVAILABLE EVERYWHERE

Miners Lamp Union Carbide is specially prepared for miners' use.

Because of its high gas yield, lamps require less Carbide per charge.

Uniform in size, and carefully screened: this eliminates waste and produces uniform generation of gas.

Due to the great purity of Union Carbide and its gas, the flame is of maximum illuminating power, and constant in size.

Our excellent approved package—the Blue and Gray Drum—is in keeping with our determination to faithfully protect the interests of the operator and the miner in the matter of Carbide quality, from the time the Carbide is packed at the works until it is consumed by the miner.

We have Union Carbide Warehouses in 190 cities.



# UNION CARBIDE

## Maximum Quality and Exceptional Service

have been developed to maintain the many money-saving and efficiency producing advantages realized by Operators and Miners through the use of Carbide lamps.

### Carbide Lamp Advantages

Low Cost of lamp.

Remarkably low cost of upkeep.

Long life of lamp.

Light in weight—Does not handicap miner.

Lamp very compact—No burdensome entanglements. Because of the widely diffused light, miner can easily observe conditions relating to the personal safety of himself and fellow miners. A wonderful aid to mine foremen in getting efficient and economical results.

The Carbide Lamp is easily understood and easily cared for by every miner.

Miner can always assume the posture—standing, bending or kneeling—which will enable him to work with greatest

comfort, and light is always directed just where he needs it.

Greater volume of light than from any other type of mine lamp.

Minimizes number of accidents resulting from poor lights.

Working places can be more easily and thoroughly inspected, and dangerous roof, wall and floor conditions detected with greater certainty. No eye strain when Carbide lamps are used. Eye strain means loss of general efficiency.

Carbide Lamp can always be used as convenient Hand Lamp, or can be hung up.

Size of flame and volume of light easily regulated.

Carbide Lamps used in and about mines, have accomplished more for the comfort and convenience of miners than any other development, invention or device of the twentieth century. Union Carbide Gas light is more nearly like the natural light of the sun than any other light known to man. The miner can accomplish more and better work, with greater ease, comfort and safety, than would otherwise be possible.

Our Blue and Gray Drum is, throughout the world, recognized as a symbol denoting:

**Best Grade Carbide  
Highest Gas Value**

**Uniform Dependable Quality  
Purest Gas**

## UNION CARBIDE SALES COMPANY

Principal Offices:

Peoples Gas Bldg., Carbide and Carbon Bldg.,  
Chicago, Ill.

New York, N. Y.

Adam Grant Bldg.,  
San Francisco, Calif.

# SUPREME MINE CAP LAMP

The new 4-volt dry electrolyte "CEAG" Cap Lamp RM-7 just approved by the U. S. Bureau of Mines—Approval No. 21—is now being offered.

Ever since the U. S. Bureau of Mines approved in June, 1913, the first "CEAG" Electric Safety Lamp—Approval No. 1—the lamp maintained its inherent qualities and high degree of excellence in design, culminating now in the ideal Cap Lamp that provides for—

The Volume of Light and the physical properties of the modern Cap Lamp; it employs a high candlepower 4-Volt Mazda bulb with a concentrated filament, so mounted that the rays of light are unobstructed. Brilliancy of light uniformly maintained without "GLARE AND GLOOM" to the miner, over 15 to 18 hours' shift.

## PLUS

Highest degree of COMFORT and SAFETY to the miner by virtue of the DRY ELECTROLYTE BATTERY, a feature exclusive to the "CEAG" Lamp. This is accomplished by means of an ingenious arrangement of electrodes, properly spaced in working condition without the use of the ordinary sep-

arator, thus allowing ample space for successfully operating DRY ELECTROLYTE, —radically precluding leakage of ELECTROLYTE, eliminating consequent damage to person and clothing of miner and loss of light by diminished capacity.

The large surplus power of the battery represents a margin in SAFETY to safeguard against the dangers and discomfort of "being left in the dark."

## ADDITIONAL FEATURES:

DEPENDABILITY in SERVICE, owing to long life of bulb and battery, liberal design and high class workmanship.

MAGNETIC LOCK (an exclusive "CEAG" feature) prevents tampering or short-circuiting. After a number of explosions, caused by miners tampering with key-locked lamps, latest Safety Practice calls for adoption of MAGNETIC LOCK.

SIMPLICITY OF CONSTRUCTION; fewest number of parts, all easily exchangeable in your own lamp-house by handy man.

Time necessary for changing bulb: 8 seconds.

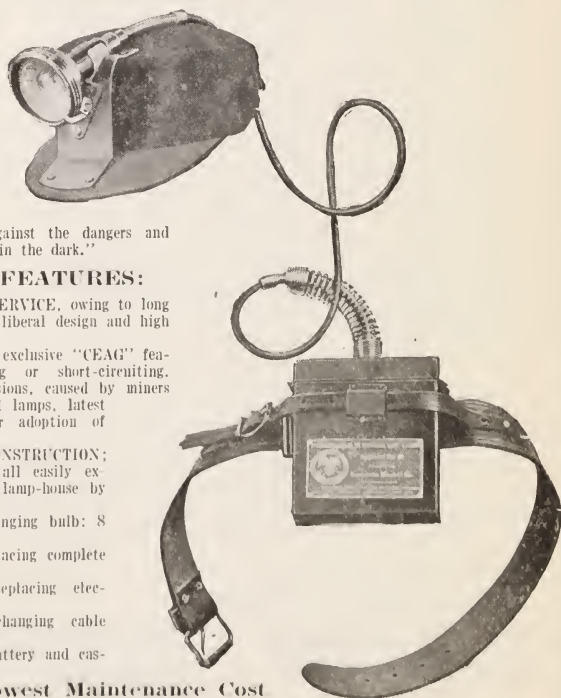
Time necessary for replacing complete battery: 5 seconds.

Time necessary for replacing electrodes: 10 minutes.

Time necessary for changing cable cord: 80 seconds.

Average WEIGHT of battery and casing: 4 lbs. 15½ ozs.

**Lowest Maintenance Cost  
Guaranteed  
Ask for Trial-Rental Terms**



**Concordia Electric Co.**  
916 Forbes St. Pittsburgh, Pa.

## STATEMENT SHOWING RECEIPTS AND DISBURSEMENTS FROM JANUARY 1, TO DECEMBER 31, 1926

### RECEIPTS

Tax collected on coal mines.....	\$40,768.71	
From sales of copies of the Coal Mining Laws.....	531.65	
Sales of old instruments.....	12.00	
Balance brought forward from 1925.....	9,944.44	
<b>Total.....</b>		<b>\$51,256.80</b>

### DISBURSEMENTS

Salaries of entire Department.....	\$22,881.00	
Expenses, Chief and Deputy Inspectors.....	4,880.62	
Fatal accident investigators, per diem and expenses.....	243.11	
Mileage books (R. R. transportation).....	960.00	
Automobiles, supplies and repairs.....	3,372.06	
Board of Examiners, per diem and expenses.....	1,480.60	
Printing .....	558.35	
Postage .....	750.00	
Stationery Supplies .....	526.23	
Telephone service .....	91.45	
Telegraph service .....	32.47	
Instruments .....	127.12	
Express .....	5.02	
Miscellaneous .....	345.69	
<b>Total.....</b>		<b>\$36,253.72</b>
Surplus December 31, 1926.....		<b>\$15,003.08</b>

### FIELD EQUIPMENT

One Hupmobile Sedan	One Geophone
One Star Coupe	Five Speedometers
Four Star Coupsters	One Carbon Monoxide Gas Detector
Four Psychrometers	Six Koehler Safety Lamps
Seven Anemometers	Three Clineometers

# COALS *of* QUALITY

## Lignite—

Puritan--Weld County District  
Monarch--Louisville District

## Bituminous—

Thor--Trinidad District  
Royal--Walsenburg District

Our Puritan Mine is the largest producer of domestic lignite coal in the state of Colorado. Our Monarch Mine is the largest producer in the Louisville District (Colorado).

## NATIONAL FUEL COMPANY

*PRODUCERS AND SHIPPERS*

511-520 Colorado Bldg.

Denver, Colo.

# SUMMARY OF THE COAL PRODUCTION OF COLORADO, 1926

*Number of mines operated.....	264
Number of new and old mines opened—new mines, 4; old mines re-opened, 6; total.....	10
Number of mines closed, 16; abandoned, 1; total.....	17
Tons of sub-bituminous coal produced.....	2,939,949
Tons of semi-bituminous coal produced.....	761,559
Tons of bituminous coal produced.....	6,786,859
Tons of semi-anthracite coal produced.....	43,197
Tons of anthracite coal produced.....	85,196
Total number of tons of coal produced.....	10,616,760
Increase, 1926 .....	176,373
Tons of run of mine coal produced.....	2,797,851
Tons of lump coal produced.....	3,112,605
Tons of nut coal produced.....	1,073,368
Tons of pea coal produced.....	666,007
Tons of slack coal produced.....	2,966,929
Percentage of slack coal produced.....	37.9
Tons of coal mined by hand.....	5,176,626
Tons of coal mined by machine.....	5,440,134
Kind and number of machines used—compressed air, 119; electric, 324; total .....	443
Tons of coal mined for shipment.....	9,476,219
Tons of coal shipped out of the state.....	2,269,143
Tons of coal sold to local trade and used by employes.....	664,016
Tons of coal used at the mines for steam and heat.....	238,813
Tons of coal made into coke.....	1,324,465
Tons of coke made .....	792,517
Number of days coke ovens were operated.....	348
Number of coke ovens used.....	600.4
Number of men employed at coke ovens.....	230
Number of miners employed—pick, 4,121; machine, 3,429; total.....	7,550
Number of men employed in and about mines (average).....	11,768
Number of employes foreign born.....	4,601
Number of employes speaking English.....	11,444
Average number of days worked (man-days).....	202.9
Daily production per miner.....	6.37
Annual production per miner.....	1,406.2
Number and type of safety lamps used—flame, 904; electric, 9,223; total .....	10,127
Number of carbide lamps used.....	4,281
†Number of pounds of carbide used (approximately).....	171,378
Number of pounds of permissible powder used.....	930,844
Number of pounds of black powder used.....	1,284,075
Number of pounds of dynamite powder used.....	53,323
Number of men killed—underground, 48; surface, 4; total.....	52
Number of men injured.....	1,863
Number of men killed per thousand employed.....	4.42
Number of men injured per thousand employed.....	158.1
Number of tons of coal produced for each life lost.....	204,168
Number of tons of coal produced for each non-fatal accident.....	5,699
Number of men killed per million tons of coal produced.....	4.89
Number of men injured per million tons of coal produced.....	175.48
Number of men employed per fatal accident.....	226.3
Number of men employed per non-fatal accident.....	6.3
Number of widows left.....	33
Number of children left fatherless.....	88
Cost of development work in mines during 1926: 108 mines reporting .....	\$ 643,279.00
Number of days lost account of car shortage: 30 mines reporting .....	296
Number of tons of coal lost through labor shortage: 20 mines reporting .....	116,100

\*NOTE: The yearly reports of 3 of the above 264 mines were filed too late to embody their combined production of 1,190 tons in the tables of this Annual Report. However, they are included in the Mine Directory or Table No. 1.

†NOTE: A number of mines did not report the carbide used as same was furnished by employes.



# --TIPPLES-- AND - COAL PREPARATION EQUIPMENT -



MINE 22—WESTERN COAL AND MINING COMPANY—In Construction  
One of the Eleven Tipples Built By Us in 1926

COMPLETE TIPPLES  
SHAKER SCREENS  
FREDERICK SEPARATORS  
PICKING TABLES  
LOADING BOOMS

CONVEYORS  
ELECTRIC HOISTS  
VENTILATING FANS  
COAL CRUSHERS  
MINE CARS

Consultation, Plans and Estimates Without Obligation

**The Pittsburg Boiler and Machine Co.,    Pittsburg, Kansas**

WESTERN SALES OFFICE, 321 Railway Exchange, KANSAS CITY, MISSOURI

# FOURTEENTH ANNUAL REPORT

OF THE

## STATE INSPECTOR OF COAL MINES

*1926*

### INTRODUCTION

The Fourteenth Annual Report of the State Inspector of Coal Mines is herewith submitted for publication. The tabulations compiled from the various reports filed with the Department during the year 1926 show that 212 companies and individual operators reported the output of 264 mines as 10,616,760 tons, an increase of 176,373 tons over that of 1925. The average number of men employed in and about the mines was 11,768, being 460 men less than in the preceding year, and the man-days worked was 202.9 or 16.3 more days in 1926. Out of the 264 mines recorded, 142 have no railroad connections, although some of them freight coal by truck within a radius of fifty miles, the greater number, however, supply local trade only and are idle during the spring and summer.

Fifty-two lives were lost during the year, four at Bear Canon mine explosion and three at the Harvey Gap mine explosion. While this is a great loss of life, it is slightly better than in 1925, in which fifty-seven lives were lost, or 4.66 per thousand employed, as compared with 4.5 in 1926. The non-fatal accidents, which are only approximately obtained, was 1,863 or 49 less than in the preceding year. See tables Nos. 7 and 8. Thirty-three wives were widowed and eighty-eight children made fatherless by these fatal accidents. Many of these children become charges upon public charity, and are deprived of a father's care, have less opportunities for efficient training to make them useful citizens in the future. The poor widows are often compelled to leave home and go out to work, a further loss to the welfare of the children. It seems that the hazards in coal mining are still very great and only constant and persistent effort on part of operators and employes can reduce them. Sad to say, the human element is uncertain, lapses occur and they are so human that no iron-clad rules can be enforced. Also, science has invented many mechanical safety devices, and will continue to do so, but always will the great desire to lessen the cost of production offset what aid safety devices give.

Four new mines were opened up during the year, but very little data was furnished this office concerning them. Three of them produced coal. The Sleepy Cat Coal Co., at Hayden, Routt County, with M. T. Streeter as manager, drove a pair of slopes 750 feet long, a good grade of semi-bituminous coal five feet high was reached. A power plant, tipple, fan, and hoist houses have been built, also boarding house and five bunk houses. Cost of development and equipment was \$23,766.00. No railroad connections, but coal was trucked to railroad and shipped to Omaha, Nebr., where it found a market.

The Keystone Coal Co., with Mr. John Connell as President, opened the Keystone mine near Oak Creek, Routt county. A pair of slopes 600 feet long have been driven and a pair of entries turned off the main slope. A good grade of bituminous coal six feet thick was struck. It is in easy reach of the D. & S. L. R. R. A fan has been installed and to date \$9,070.00 has been expended on it.

The Carbon Coal Co., with Dave Urquart as manager, opened the Carbon mine at Florence, Fremont county. A slope 250 feet long and a drift 350 feet long have been driven and 700 feet of entries have been turned off. A four-foot seam of semi-bituminous coal was struck. No railroad connection. A fan has been installed and the cost of development to date was \$6,500.00.

The Pacific Coal Mining Company, with John C. Caddell as manager, is opening up the Pacific mine near Walsenburg, Huerfano county. This promises to be a mine of large producing capacity. Up to the present time no coal has been mined, only development work has been done. A slope 1,400 feet long has been driven at a cost of \$15,480.00 and equipment ordered costing so far \$20,000.00, which is on the ground but not yet installed. No railroad connections, but survey has been made and railroad will be in when mine is on a production basis. Depth of seam not given, probably not yet established.

Some very expensive improvements were made at the mines of several of the large companies, also a number of smaller operators put in many improvements. Briefly enumerated they are approximately as follows: Over a hundred good dwelling houses, and several bath houses were built to give better accommodations to employes. A number of office buildings were erected. Water plants, power plants, and tipples were erected, and several old plants and tipples remodeled. Nineteen of the latest model pumps, 287 pit cars, 182 electric lamps, 12 electric generators, a number of cutting machines, 13 electric hoists, box car loaders, scales and shaker screens were purchased. Twenty-three new fans, telephones, and many mining devices were installed. Two additional rock dusting machines were purchased during the year, all showing that the trend of the Colorado coal mining industry is progressive and building for a greater output in the future. These improvements represent an outlay of many hundred thousand dollars.

The law requiring all coal mines in Colorado to install a ventilating fan and have certified mine foreman in charge was passed



in 1921, but because of lack of funds was not enforced until 1925, when the Legislature increased the tax from one-third of a cent to four-tenths of a cent per ton. As soon as we started to enforce the law, one injunction after another was issued against me prohibiting me from closing the mines which did not comply with the above requirements, and nothing could be done until the State Supreme Court rendered a decision upholding the law, on November 29, 1926, which in part is as follows:

"We wish to make it plain that we are not passing upon the validity of the statute as applied to a small mine operated by the owner alone. We are holding the statute valid, as applied to the facts in the case, here, where, as we have pointed out, the mine when closed and for nearly three months prior to that date, was worked by the owner and one employee."

"The judgment should be reversed, REVERSED."

Immediately after the first injunction was served on me, I notified the Deputy Inspectors not to inspect or interfere with the mines employing less than eleven men. This policy was followed until after the decision of the Supreme Court was given, when we again endeavored to enforce the law. With all the litigation and other interferences, about 80% of all the small mines have installed fans and have certified men in charge.

The following tables are given so that everybody may have the facts and understand why the Coal Mine Inspection Department took the steps they did concerning the small mines employing certified foreman and installing ventilating fans.

TABLE SHOWING THE NUMBER OF MINES; NUMBER OF MEN EMPLOYED; PRODUCTION; NUMBER OF FATAL ACCIDENTS; NUMBER OF TONS OF COAL PRODUCED PER FATAL ACCIDENT; AND NUMBER OF MEN KILLED PER THOUSAND EMPLOYED FOR THE YEARS 1913-1925, INCLUSIVE, IN MINES EMPLOYING ONE TO FIVE MEN, INCLUSIVE.

YEAR	No. of Mines	Tons of Coal Produced	No. of Fatal Accidents	Tons Coal Produced per Fatal Accident	Killed per 1,000 Employed	No. of Men Employed
1913 .....	23	42,399	2	21,199	24.4	82
1914 .....	41	50,001	3	16,667	23.26	129
1915 .....	49	50,304	1	50,304	6.94	144
1916 .....	65	70,815	2	35,407	13.89	144
1917 .....	52	71,969	0	.....	.....	129
1918 .....	63	77,058	0	.....	.....	177
1919 .....	72	87,065	0	.....	.....	194
1920 .....	71	94,586	2	47,293	10.64	188
1921 .....	83	94,422	1	94,422	4.59	218
1922 .....	95	98,923	3	32,974	12.05	249
1923 .....	106	112,484	2	56,242	7.91	253
1924 .....	111	120,344	0	.....	.....	256
1925 .....	132	137,780	5	27,556	15.38	325
Average .....	74	85,242	1.615	52,781	8.5	190

Mines employing one to five men inclusive produced .82% of all coal mined in Colorado from 1913 to 1925 inclusive, employed 1.45% of all the men working in and about coal mines in Colorado from 1913 to 1925 inclusive, and killed 2.18% of all the men killed in and about coal mines in Colorado from 1913 to 1925 inclusive.

The above table shows that mines employing from one to five men inclusive killed 30.6% more men per 1,000 employed and produced less than 40% of the tonnage produced by mines employing more than 10 men per life lost.

Comparative statement showing the number of men killed per 1,000 employed and number of tons of coal produced for each life lost in mines employing 1 to 10 men inclusive and in all mines employing more than ten men, for the years of 1913 to 1925 inclusive. Also, showing the same information for the entire state prior to the present law becoming effective, 1908 to 1912 inclusive.

MINES EMPLOYING 1 TO 10 MEN, INCLUSIVE			MINES EMPLOYING 11 MEN OR MORE		
YEAR	Killed per 1,000 Employed	Tons of Coal Produced per Fatal Accident	YEAR	Killed per 1,000 Employed	Tons of Coal Produced per Fatal Accident
1913.....	15.6	33,452	1913.....	8.44	85,688
1914.....	11.1	44,405	1914.....	6.97	112,058
1915.....	3.5	122,719	1915.....	5.13	136,392
1916.....	11.28	45,986	1916.....	3.14	253,274
1917.....	No	Fatals	1917.....	13.73	65,551
1918.....	5.6	87,083	1918.....	4.92	180,926
1919.....	2.6	166,285	1919.....	7.33	113,781
1920.....	11.1	50,927	1920.....	5.00	184,506
1921.....	5.29	81,576	1921.....	3.63	179,576
1922.....	7.78	58,519	1922.....	5.42	139,565
1923.....	6.62	71,675	1923.....	4.91	160,662
1924.....	2.24	224,135	1924.....	3.51	238,999
1925.....	10.31	45,048	1925.....	4.43	196,445
Average.....	6.74	71,821	Average.....	5.9-	136,395

## STATE OF COLORADO, 1908-1912

YEAR	Killed Per 1,000 Employed	Tons of Coal Produced per Fatal Accident
1908.....	4.4	170,992
1909.....	6.76	121,039
1910.....	21.6	37,946
1911.....	6.35	122,862
1912.....	7.06	113,418
Average.....	9.25	113,051

REMARKS: The above figures for the years 1913 to 1925, inclusive, show that the mines employing one to ten men, inclusive, kill over 12½% more men per 1,000 men employed than the mines employing 11 men and over, and that they produced less than 53% of the tonnage produced by the mines employing more than 10 men per life lost.



The Legislature is now in session. I have appeared before the mining committees of Senate and House and furnished them with copies of the above tables. Notwithstanding this, two bills have been presented, one of them exempting mines employing not more than six men underground from employing a certified mine foreman, the other exempting mines employing not more than five men underground from employing a certified foreman and installing a ventilating fan. In other words, they will exempt mines having the highest fatality rates from the two major requirements of the law.

The following is a summary of the work done by the field force of this Department, during the year.

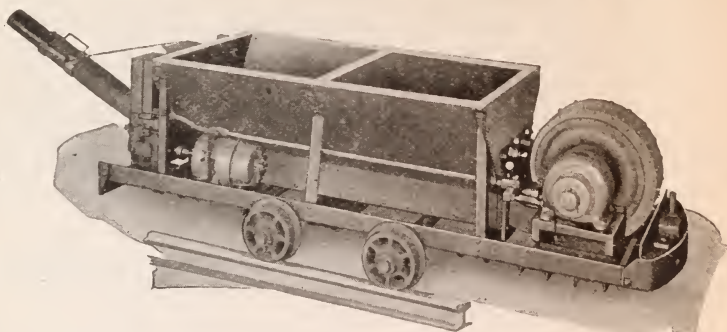
Total Inspections made in 1926.....	688
Total Mines Inspected.....	220
Number of Fatal Accidents Investigated by Inspectors and Special Investigators .....	45
Number of Inquests Attended by Inspectors and Special Investigators .....	36
Scale Inspections .....	5
Complaints Investigated .....	32
Prosecutions .....	9
Miles Traveled by Auto.....	40,427
Railroad Scrip Used.....	\$960.00

In concluding, I wish to thank the great majority of coal companies for their co-operation with this Department in complying with the law and the field force for their loyal and faithful services rendered during the year.

On January 1st, 1927, Mr. Henry P. King resigned his position. He had been Deputy State Coal Mine Inspector since 1910. He was a capable and conscientious official and the loss of his services will be felt. Mr. Finlay McCallum was appointed to succeed him.

Respectfully submitted,

(Signed) JAMES DALRYMPLE,  
State Inspector of Coal Mines.



## THE NEW M-S-A ROCK DUST DISTRIBUTOR

The first commercial Rock Dust Distributor ever marketed in this country was manufactured a little more than two years ago by the Mine Safety Appliances Company. Since that time Experienced Mining Engineers and Coal Operating Executives have collaborated with us to produce the New M-S-A Machine.

### The Essential Features Include:

- (1) A sufficiently rugged construction to withstand hard usage in coal mines.
- (2) A design simple enough to be fool-proof, yet mechanically sound.
- (3) A positive means of feeding the dust, with particular care being given to its proper aeration.
- (4) A means of varying the amount of dust discharged. A rock dust distributor should be able to force dust through pipes or hose of reasonable length. A decrease in the rate of dust discharge will permit air under pressure to carry the dust farther. Maximum discharge rate 125 lbs. per minute; minimum 70 lbs.
- (5) Protection of bearings, motors and meshed gears from the fine rock dust.
- (6) A nozzle whose use will make possible a uniform application of rock dust over irregular entries and those whose cross-sectioned shape varies considerably. Since the cost of rock dust represents about 65 per cent of the total cost of rock dusting, it is wise to be economical in its use, by placing the dust where it is most needed. This can be accomplished only by use of a flexible nozzle.

For those interested we have prepared an illustrated booklet giving complete information and detailed description. Write today for your copy. Ask for Bulletin No. 211.

*Mine Safety*  *Appliances Co.*

*Braddock Ave. & Thomas Blvd. Pittsburgh, Pa.*

**"Everything for Mine and Industrial Safety"**



DIRECTORY OF COAL MINES IN STATE OF COLORADO FOR THE YEAR ENDED DECEMBER 31, 1926







TABLE No. 3  
VENTILATING EQUIPMENT OF COAL MINES IN STATE OF COLORADO FOR THE YEAR ENDING DECEMBER 31, 1926

Name of Operator	Name of Mine	Kind of Opening				Gaseous or Non-Gaseous	Number and Type of Safety Lamp Used		Method of Ventilation	Name of Fan	Diameter Feet	Revolutions Per Minute	Water Gauge Developed Inches	Kind of Power Used
		Shaft Depth	Slope		Drift Length		Flame	Electric						
			Length	Degree Pitch										
Ajax Coal M. Co.	Capitol	219				Gaseous	1		Fan	Buffalo	10	70		Steam
Alamo Coal Co.	Alamo		2500	17°		Gaseous	4	235	Fan	Vulcan	5	165	1 1/2	Electric
Altitude Coal Co.	Danville	91				Non-Gaseous	4		Fan		24	60		Steam
Altitude Coal Co.	Altitude			5°	1900	Non-Gaseous	1		Fan					Steam
American Smelting & Ref. Co.	San Juan			8°	3200	Non-Gaseous		47	Fan		40	114	6	Electric
American Smelting & Ref. Co.	Bonanza			1°	5500	Gaseous	7	300	Fans (2)	Jeffrey	7 1/2 x 5	410	1 1/2	Electric
Amos Coal Co.	MacCroskey				400	Non-Gaseous	1		Fan	Robinson	3	400	1 1/2	Gasoline Engine
Anchor Coal Co.	Anchor No. 2			12°	240	Non-Gaseous	1		Fan					
Anchor Fuel Co.	Baldy				700	Non-Gaseous	1		Fan		4	300		Gasoline Engine
Arthur Coal Co.	Arthur			6°	450	Non-Gaseous	1		Furnace					
Astee Coal M. Co.	Tollie		3300	10°		Gaseous	1	160	Fan	Sirocco	4 1/2 x 3	260		Steam and Electric
Babson Coal Co.	Habson		400			Non-Gaseous	1		Fan		6	500		Gas Tractor
Baldwin Fuel Co.	Baldwin Star				1600	Non-Gaseous	1		Natural					
Barlow Coal Co.	Barlow				1500	Gaseous	4	92	Fan	Vulcan	7	80	5	Electric
Barker, Wright	Wright	Strip	PH											
Baudino & Co.	Morning Star				1000	Non-Gaseous	1		Fan		5 1/2	180		Gasoline Engine
Eay & Harper	Shamrock (Crane)				1500	Non-Gaseous			Natural					
Bear Canon Coal Co.	Bear Canon No. 3		500		1700	Gaseous	2	40	Fan	Jeffrey	6	410		Electric
Bear Canon Coal Co.	Bear Canon No. 6				2350	Gaseous	3	125	Fan	Jeffrey	4	550		Electric
Bennett Coal Co.	Bennett				600	Non-Gaseous			Natural					
Black Canon Coal & Fuel Co.	Caddell		{ 1600 } { 1300 }			Gaseous	2	50	Fan		10	112		Electric
Black Diamond Coal Co.	Black Diamond			5°	400	Non-Gaseous	1		Fan	Home Made	4	140		Gasoline Engine
Black Diamond Fuel Co.	Black Diamond		300	10°		Non-Gaseous	1		Fan	American	2 x 4	300		Electric
Black Hawk Coal Co.	Mohawk	No	Report	Mine	Closed									
Black Hills Coal Co.	Black Hills		300		600		4		Fan		10	75	5	Gasoline Engine
Block Coal Co.	Block	Not	Stated			Non-Gaseous			Fan					
Bluff Springs Coal Co.	Bluff Springs No. 2		200			Non-Gaseous	1		Fan		4 1/2	1140		Electric
Boagley Coal Co.	Pickford		20			Non-Gaseous			Fan					
Bonner Coal Co.	Bonner		300			Non-Gaseous	1		Natural					
Boulder Black Hawk Coal Co.	Boulder Black Hawk	No	Report	Mine	Closed									
Boulder Valley Coal Co.	Centennial	265		2°		Gaseous	3		Fan	Crawford & McCrimmon	12	124		Steam
Boulder Valley Coal Co.	Boulder Valley	350				Gaseous	1	300	Fan	Ajax	6	300		Steam and Electric
Brant Coal Co.	Brant		235			Non-Gaseous			Fan					
Burnhill Fuel Co.	Burnhill		242			Non-Gaseous	4		Fan	National	5	150		Gasoline Engine
Butcher Knife Coal Co.	Butcher Knife		355			Non-Gaseous	1		Fan	Buffalo	3 1/2	600		Gasoline Engine
Caliente Coal Co.	Havenwood		5000	3 1/2°		Gaseous	5	150	Fans (2)	Stine	5	690	10 1/2	Electric
Caliente Coal Co.	Mallard				1920	Gaseous	3	68	Fan	Stine	5 1/2	377	2 1/2	Electric
Calumet Fuel Co.	Somerset		4400	6°		Gaseous	3	225	Fan	Jeffrey	18 x 5	150	2 1/2	Steam and Electric
Calumet Fuel Co.	Calumet No. 1		5000			Gaseous	6	221	Fan	Jeffrey	18 x 5	190	2	Electric
Calumet Fuel Co.	Calumet No. 2		2300	3°		Gaseous	4	105	Fan		12	88	5	Electric
Camblro Fuel Co.	Perkins Park		1400			Non-Gaseous	1		Not Stated					
Camblro Coal Co.	Cambro		250	17°		Non-Gaseous	1		Fan		10	75		Steam
Canon Coal Ass'n.	Brewster		1200	16°		Non-Gaseous	1		Fan	Sturlevand	5	300		Electric
Canon District Coal Co.	Canon District No. 1		750	23°	2320	Non-Gaseous	1		Fan	Buffalo	4	250		Electric
Canon District Coal Co.	Canon District No. 2		500	18°		Non-Gaseous	1		Fan	Buffalo	18	1300	6	Electric
Canon Quality Coal Co.	South Magnet		400	20°		Gaseous	2		Fan	Blak	6	300		Electric
Canon-Hellman Coal Co.	Canon	1034				Non-Gaseous	5		Fan	Jeffrey	6	350	2 1/2	Electric
Canon Hilled Coal Co.	Jack O. Lantern		500			Non-Gaseous	1		Fan	Condit				Gasoline Engine
Carbon Coal Co. (Piedmont Co.)	Carbon		250		350	Non-Gaseous			Fan	Unknown	3	750		Electric
Carbon Coal Co. (La Plata Co.)	Carbon				600	Gaseous	1		Fan		2 1/2	40		Gasoline Engine
Carbon Creek Coal Co.	Carbon Creek		304		304	Non-Gaseous	1							
Cedar Hill Coal & Coke Co.	Greenville		2000			Non-Gaseous			Fan					
Champion Coal Co.	Champion	No	Report	Mine	Closed				Natural					
Chicago, Toni	Chicago		300	14°		Non-Gaseous			Fan	Buffalo	2 1/2	100		Gasoline Engine
Christensen Coal Co.	Christensen		500	30°		Non-Gaseous			Fan					
Clayton Coal Co.	Clayton	325				Non-Gaseous	4		Fan	Jeffrey	12	110		Steam
Colorado Fuel & Iron Co.	Coal Creek	400				Gaseous	249	129	Fan	C. P. & I.	12	165	2 1/2	Electric
Colorado Fuel & Iron Co.	Holbrook	300				Gaseous	174	291	Fan	C. P. & I.	10	200	2 1/2	Electric
Colorado Fuel & Iron Co.	Nome		4000	6°		Non-Gaseous	2		Fan	C. P. & I.	10	75	1 1/2	Steam
Colorado Fuel & Iron Co.	Piedmont	402		7°		Non-Gaseous	6		Fan	Gulbur	24	72	2 1/2	Steam and Electric
Colorado Fuel & Iron Co.	Crested Butte			7°	6900	Gaseous	5	150	Fan	Capelle	12	120	6	Steam
Colorado Fuel & Iron Co.	Elk Mountain		2700	5°		Gaseous	3	61	Fan	Jeffrey	6	165	0 1/2	Steam
Colorado Fuel & Iron Co.	Holbrook No. 1		2000			Gaseous	7	201	Fan	Capelle	13 x 9	170	2 1/2	Electric
Colorado Fuel & Iron Co.	Holbrook No. 2		5000			Gaseous	7	270	Fan	Capelle	13 x 9	170	1 1/2	Electric
Colorado Fuel & Iron Co.	Cameron		8200	4°		Gaseous	10	175	Fan	Jeffrey	6	392	2 1/2	Electric
Colorado Fuel & Iron Co.	Lester		8400	5°		Gaseous	6	225	Fan	Jeffrey	6	455	3 1/2	Electric
Colorado Fuel & Iron Co.	Pictou		6000	12°		Gaseous	4	200	Fan	Sirocco	7	270	3 1/2	Electric
Colorado Fuel & Iron Co.	Idaho		5500	4°	3000	Gaseous	7	200	Fan	C. P. & I.	40	124	1 1/2	Electric
Colorado Fuel & Iron Co.	Kobler No. 2		3500											









TABLE No. 4

MINING MACHINES AND EXPLOSIVES USED AT COAL MINES IN THE STATE OF COLORADO FOR YEAR ENDED  
DECEMBER 31, 1926

Name of Operator	Name of Mine	Mining Machines		Coal Mined by (Short Tons)			Explosives Used (Pounds)		
		No. Operated by Compressed Air	No. Operated by Electricity	Hand	Machine	Total	Black Powder	Dynamite	Permissible Explosives
Ajax Coal M. Co.	Capitol	2	...	...	7,015	7,015	200	...	900
Alamo Coal Co.	Alamo	...	6	40,841	64,232	105,073	...	360	33,612
Altitude Coal Co.	Danville	...	...	6,193	...	6,193	250	...	...
Altitude Coal Co.	Altitude	...	...	702	...	702	250	...	...
American S. & R. Co.	San Juan	...	...	31,639	...	31,639	...	...	2,050
American S. & R. Co.	Boncarbo	...	8	74,153	170,430	244,583	...	1,030	33,700
Amos Coal Co.	MacCroskey	...	...	1,850	...	1,850	1,550	...	...
Anchor Coal Co.	Anchor No. 2	...	...	1,381	...	1,381	1,000	...	...
Anchor Fuel Co.	Baldy	...	...	1,862	...	1,862	50	...	75
Arthur Coal Co.	Arthur	...	...	770	...	770	350	...	...
Aztec Coal M. Co.	Toltec	...	6	5,145	62,968	68,113	...	1,800	6,150
Babson Coal Co.	Babson	...	...	2,917	...	2,917	2,500	...	...
Baldwin Fuel Co.	Baldwin-Star	...	...	5,703	...	5,703	900	...	...
Barbour Coal Co.	Barbour	...	2	2,449	16,347	18,796	2,625	...	12,700
Barker, Wright	Wright	...	...	1,378	...	1,378	250	...	...
Baudino & Co.	Morning Star	...	...	4,634	...	4,634	1,500	...	...
Bay & Harper	Shamrock	...	...	671	...	671	375	...	...
Bear Canon Coal Co.	Bear Canon No. 3	...	2	6,259	24,297	30,556	...	...	4,300
Bear Canon Coal Co.	Bear Canon No. 6	...	4	18,724	31,073	49,797	...	...	4,616
Bennett Coal Co.	Bennett	...	...	112	...	112	25	...	...
Black Canon Coal & Fuel Co.	Caddell	...	2	1,212	7,656	8,868	1,250	100	350
Black Diamond Coal Co.	Black Diamond	...	...	4,155	...	4,155	2,250	...	150



TABLE No. 4—Continued  
 MINING MACHINES AND EXPLOSIVES USED AT COAL MINES IN THE STATE OF COLORADO FOR YEAR ENDED  
 DECEMBER 31, 1926

Name of Operator	Name of Mine	Mining Machines		Coal Mined by (Short Tons)			Explosives Used (Pounds)		
		No. Operated by Compressed Air	No. Operated by Electricity	Hand	Machine	Total	Black Powder	Dynamite	Permissible
Black Diamond Fuel Co.....	Black Diamond.....	7	2	1,471	24,762	24,762	7,500	600	.....
Black Hawk Coal Co.....	Mohawk.....	.....	1	1,471	.....	1,471	.....	.....	.....
Black Hills Coal Co.....	Black Hills.....	.....	.....	147	.....	147	250	.....	.....
Block Coal Co.....	Block.....	.....	.....	243	.....	243	.....	.....	.....
Bluff Springs Coal Co.....	Bluff Springs No. 2.....	.....	.....	14,595	.....	14,595	4,000	800	.....
Boaglio Coal Co.....	Pickford.....	.....	.....	786	.....	786	100	.....	.....
Bonner Coal Co.....	Bonner.....	.....	.....	1,346	.....	1,346	875	.....	.....
Boulder Black Hawk Coal Co.....	Boulder Black Hawk.....	1	1	559	.....	559	.....	.....	.....
Boulder Valley Coal Co.....	Centennial.....	8	1	2,000	87,682	89,682	28,175	1,377	1,670
Boulder Valley Coal Co.....	Boulder Valley.....	6	7	.....	222,843	222,843	69,200	200	2,000
Brant Coal Co.....	Brant.....	.....	.....	356	.....	356	600	.....	.....
Burnitall Fuel Co.....	Burnitall.....	.....	.....	1,565	.....	1,565	1,200	.....	.....
Butcher Knife Coal Co.....	Butcher Knife.....	.....	.....	1,967	.....	1,967	2,250	.....	.....
Calliente Coal Co.....	Ravenwood.....	8	.....	.....	73,280	73,280	.....	.....	7,800
Calliente Coal Co.....	Maitland.....	2	.....	461	28,504	28,965	.....	50	4,150
Calumet Fuel Co.....	Somerset.....	.....	4	161,742	50,016	211,758	.....	.....	38,800
Calumet Fuel Co.....	Calumet No. 1.....	10	.....	21,034	163,882	184,916	.....	.....	33,150
Calumet Fuel Co.....	Calumet No. 2.....	4	.....	65,767	16,036	81,803	.....	.....	9,800
Calumet Fuel Co.....	Perin's Peak.....	2	.....	754	35,338	36,092	.....	.....	4,582
Cambro Coal Co.....	Cambro.....	1	.....	.....	2,884	2,884	2,475	100	40
Canon Coal Ass'n.....	Brewster.....	.....	.....	.....	6,577	6,577	500	1,000	.....
Canon District Coal Co.....	Canon District.....	1	2	.....	4,252	4,252	475	400	.....



Canon Quality Coal Co.....	South Magnet.....	1	.....	2,930	2,930	2,500	800	100
Canon-Reliance Coal Co.....	Canon.....	3	.....	65,348	65,348	.....	150	11,800
Canon-United Coal Co.....	Jack O' Lantern.....	.....	3,543	.....	3,543	750	.....	.....
Carbon Coal Co. (Fremont).....	Carbon.....	1	.....	1,778	1,778	500	.....	.....
Carbon Coal Co. (La Plata).....	Carbon.....	.....	100	.....	100	.....	.....	.....
Carbon Creek Coal Co.....	Carbon Creek.....	.....	778	.....	778	1,000	75	.....
Cedar Hill Coal and Coke Co.....	Greenville.....	.....	13,249	.....	13,249	.....	.....	.....
Champion Coal Co.....	Champion.....	†	241	.....	241	.....	.....	.....
Chargo, Tom.....	Chargo.....	.....	265	.....	265	300	.....	.....
Christensen Coal Co.....	Christensen.....	6	.....	2,545	2,545	145	25	.....
Clayton Coal Co.....	Clayton.....	8	11,000	291,005	302,005	111,000	.....	500
Colorado Fuel & Iron Co.....	Coal Creek.....	.....	133,908	.....	133,908	.....	.....	10,105
Colorado Fuel & Iron Co.....	Rockvale.....	2	22,170	22,820	44,990	.....	.....	2,820
Colorado Fuel & Iron Co.....	Nonac.....	2	7,060	21,758	28,818	6,434	.....	114
Colorado Fuel & Iron Co.....	Fremont.....	2	15,788	11,186	26,974	282	.....	3,723
Colorado Fuel & Iron Co.....	Crested Butte.....	.....	120,137	.....	120,137	.....	.....	10,545
Colorado Fuel & Iron Co.....	Elk Mountain.....	.....	43,197	.....	43,197	.....	.....	8,403
Colorado Fuel & Iron Co.....	Robinson No. 1 & 2.....	16	139,337	263,898	393,235	.....	.....	53,202
Colorado Fuel & Iron Co.....	Cameron.....	9	45,336	174,512	219,848	.....	.....	19,468
Colorado Fuel & Iron Co.....	Lester.....	3	99,359	40,969	140,328	.....	.....	15,533
Colorado Fuel & Iron Co.....	Pictou.....	9	52,881	83,781	136,662	.....	.....	12,546
Colorado Fuel & Iron Co.....	Ideal.....	.....	96,278	.....	96,278	.....	.....	36,823
Colorado Fuel & Iron Co.....	Kebler No. 2.....	6	7,826	54,442	62,268	17,555	.....	4,782
Colorado Fuel & Iron Co.....	Frederick.....	3	394,277	44,295	438,572	.....	.....	74,507
Colorado Fuel & Iron Co.....	Morley.....	1	331,559	4,741	386,300	.....	.....	2,850
Colorado Fuel & Iron Co.....	Toller.....	4	166,257	70,099	236,356	.....	.....	23,760
Colorado Fuel & Iron Co.....	Tobasco.....	3	181,815	50,038	231,853	.....	.....	20,829
Colorado Fuel & Iron Co.....	Berwind.....	4	151,842	77,437	229,279	.....	.....	20,363
Colorado Fuel & Iron Co.....	Sopris.....	1	174,561	29,195	203,756	.....	.....	52,121
Colorado Fuel & Iron Co.....	Primero.....	.....	926	.....	926	.....	.....	105
Colorado Springs Coal Co.....	City Coal Mines.....	2	22,851	37,556	60,407	20,000	.....	50
Colorado & Utah Coal Co.....	Harris.....	6	49,198	155,015	204,213	.....	2,062	2,639
Consolidated Coal & Coke Co.....	Baum.....	7	.....	134,280	134,280	50,750	.....	.....
Converse, Frank.....	Converse.....	.....	619	.....	619	.....	.....	.....
Corley, W. D.....	Corley.....	3	.....	27,492	27,492	8,750	.....	.....
Cortez Coal Co.....	Cortez.....	.....	1,399	.....	1,399	3,125	50	.....
Cottonwood Coal Co.....	Cottonwood.....	.....	729	.....	729	1,125	.....	.....
Cox, T. L.....	Cox.....	.....	435	.....	435	500	.....	.....

TABLE No. 4—Continued

MINING MACHINES AND EXPLOSIVES USED AT COAL MINES IN THE STATE OF COLORADO FOR YEAR ENDED DECEMBER 31, 1926

Name of Operator	Name of Mine	Mining Machines		Coal Mined by (Short Tons)			Explosives Used (Pounds)		
		No. Operated by Compressed Air	No. Operated by Electricity	Hand	Machine	Total	Black Powder	Dynamite	Permissible
Cracker Jack Coal Co.	Cracker Jack No. 1	1		49	280	329	325		
Crested Butte Anthracite M. Co.	Smith-Anthracite		1	24,961	11,551	36,512	5,600	240	
Crested Butte Coal Co.	Bulkeley No. 2			57,880		57,880	28,750		
Crown Fuel Co.	Crown	7			27,335	27,335	7,625		
Cunningham & Elliott	Cunningham	†	†	150		150			
Davis, T. P.	Engle			4,015		4,015			
Deboy, Frank	Ohkraut			312		312	250		
DeGraffenried, J. R.	De Graffenried			100		100	75		
Dennis & Malone	Verdun	†		22		22			
Dick Coal Co.	Dix		3	8,053	77,700	85,753		1,450	10,450
Domenico & Sons, S., Inc.	Paramount	5		407	16,191	16,598	5,300		
Domestic Coal Co.	Matchless			2,086		2,086	625		
Donaldson & Ferino	North Magnet		1		4,764	4,764	2,000	1,400	
Double Dick Coal Co.	Double Dick		1		14,797	14,797	1,875	1,200	
Drennan Coal Co.	Drennan			555		555			
Drott, John H.	Liberty Bell			300		300	250		
Durango Coal Co.	Durango			8,846		8,846			1,400
Electric Coal Co.	Oldland	†	†	1,996		1,996			
Electric Coal Co.	Black Diamond			1,904		1,904	625		
Electric Coal Co.	Pollard			589		589	350		
Empire Coal M. Co.	Empire			74,740		74,740			4,000
Eno, O. D.	Marr			2,500		2,500	2,000		

Fairfield, Ed. F.	Fairfield	167	167	167	60
Fawcett Coal Co.	Fawcett	1,026	1,026	1,026	.....
Fitzsimmons, E. A.	Berry	955	955	955	.....
Florida Grange No. 306.	Grange	122	122	122	.....
Foreman, Thos. D.	Nine Mile	315	315	325	.....
Fraker Coal Co.	Bear River	1	50,083	64,121	500
Franklin Coal Co.	Witherbee	1	3,684	3,684	.....
Freeman & Co. *	School Sec. Lease	.....	2,676	2,676	100
Fruth & Stone	Leader No. 1	.....	1,594	1,594	.....
Fruth & Stone	Leader No. 2	.....	7,905	7,905	600
Gadberry, R. V.	G. & G.	.....	363	363	.....
Gearhart, B.	P. V.	.....	333	333	150
Gelwick Coal Co.	Gelwick	.....	1,258	1,258	.....
Gilson Asphaltum	Carbonera	.....	11,172	11,172	1,500
Golden Dawn Coal Co.	Golden Dawn	† 1	2,343	2,343	.....
Gordon Coal Co.	Gordon	5	700	57,105	11,350
Grand Junction M. & F. Co.	Cameo	5	22,187	54,181	8,950
Grand Junction M. & F. Co.	Sterling	3	5,662	98,609	.....
Grassi & Cozzetti	G. & C.	.....	295	295	750
Gray, L. J.	Gray	.....	266	266	.....
Green Valley Coal Co.	Green Valley	.....	5,923	5,923	.....
Griffiths Coal Co.	Griffiths	1	10,079	10,079	.....
Guiliano Coal Co.	Bluff Springs No. 1	1	5,083	5,083	300
Halbert Coal Co.	Joerger	.....	338	338	10
Happy Canon Coal Co.	Happy Canon	.....	485	485	.....
Hayden Bros. Coal Corp.	Hayden No. 3	3	86,076	38,917	1,550
Hidden Treasure M. Co.	Hidden Treasure	†	1,647	1,647	.....
Home Fuel Supply Co.	Banner	.....	1,952	1,952	25
Huerfano Coal Co.	Ludlow	4	54,734	22,270	600
Hughes, Wm.	Hughes	.....	853	853	9,100
Hunziker & Hodge	Eureka	†	3,344	3,344	200
Independent Coal Co.	Independent	.....	2,361	2,361	.....
Jeffries Fuel Co.	Jeffries	.....	5,459	5,459	1,000
Jenkins & Lewis	Burdick	.....	730	730	.....
Jewel Collieries Corp.	Creston	3	15,332	36,180	50
Jewel Collieries Corp.	Jewel	†	1,918	1,918	4,987
Jones & Trachta	Douglas Creek	.....	155	155	.....
Juanita Coal & Coke Co.	King	.....	45,336	45,336	.....

TABLE No. 4—Continued

MINING MACHINES AND EXPLOSIVES USED AT COAL MINES IN THE STATE OF COLORADO FOR YEAR ENDED DECEMBER 31, 1926

Name of Operator	Name of Mine	Mining Machines		Coal Mined by (Short Tons)			Explosives Used (Pounds)		
		No. Operated by Compressed Air	No. Operated by Electricity	Hand	Machine	Total	Black Powder	Dynamite	Permissible
Keck, W. R.	Keck	.....	.....	587	.....	587	100	.....	.....
Keystone Coal Co.	Keystone	.....	.....	3,487	.....	3,487	8,750	.....	300
Knez Coal Co.	Knez	.....	.....	620	.....	620	1,200	.....	.....
Langley & Wolf	Hart	.....	.....	1,282	.....	1,282	500	.....	.....
Leyden Coal Co.	Leyden No. 3	11	.....	42,255	57,616	99,871	26,125	.....	.....
Liberty Coal & M. Co.	Nearing	.....	.....	1,663	.....	1,663	.....	.....	.....
Liddle & Jones	Garfield	.....	.....	3,436	.....	3,436	4,050	.....	.....
Liley Coal & Land Co.	Liley (Evans)	5	1	.....	84,953	84,953	32,600	.....	.....
Liley Coal & Land Co.	Frederick	4	.....	.....	8,023	8,023	3,725	.....	.....
Linn, A. C. & Sons.	Mutual	†	†	904	.....	904	.....	.....	.....
Lion Canon Coal Co.	Lion Canon	.....	.....	769	.....	769	700	.....	.....
Marketti, J. R.	Marion	.....	.....	1,869	.....	1,869	.....	.....	800
Mascot, C. O. & C. P. Co.	Mascot	.....	.....	311	.....	311	250	.....	.....
Mattivi, Steve & Sons	Bunker Hill	.....	.....	1,276	.....	1,276	.....	.....	50
Midwest Coal Co.	Midwest	.....	1	2,642	3,379	6,021	.....	.....	.....
Moffat Coal Co.	Oak Hills No. 1	.....	4	113,314	4,416	117,730	30,459	.....	12,944
Moffat Coal Co.	Oak Hills No. 2	2	.....	111,766	3,846	115,612	30,561	.....	13,062
Montezuma Coal Co.	Montezuma	.....	.....	1,628	.....	1,628	1,150	30	.....
Morris Coal Co.	Morris	.....	.....	52	.....	52	.....	.....	20
Mt. Evans Fuel Co.	Eberle	.....	.....	2,174	.....	2,174	2,300	.....	.....
Mutual Coal Co.	Mutual	.....	3	57,996	15,461	73,457	750	.....	2,000
McGinley, Wm.	McGinley	.....	.....	563	.....	563	.....	.....	.....



McKee, Robert.....	McKee.....	100	100	2,603	100	1,375	.....
McLendon, O. K.....	Stove Canyon.....	2,603	2,603	327	327	75	.....
McMillin Bros.....	Rollins.....	327	327	35,408	35,408	7,500	.....
McNeil Coal Co.....	MacGregor.....	5	5	134,850	134,850	30,515	3,929
National Fuel Co.....	Monarch No. 2.....	9	9,313	.....	.....	.....	.....
National Fuel Co.....	Thor.....	2	86,359	30,554	116,913	.....	12,000
National Fuel Co.....	Puritan.....	5	480	303,729	304,209	100,000	.....
New Grand Mesa Coal Co.....	Winger.....	3,016	3,016	.....	3,016	750	.....
New Mexico Lumber Co.....	North Star.....	5,220	5,220	.....	5,220	8,250	.....
North Park Coal Co.....	Moore No. 1.....	56,692	56,692	.....	56,692	40,000	5,000
Oakdale Coal Co.....	Oakdale.....	1	62,551	6,597	69,148	.....	10,000
Oberding, Wm. J.....	Oberding.....	120	120	.....	120	75	.....
Ohio Creek Coal Co.....	Ohio Creek.....	1	3,791	8,228	8,228	1,900	.....
O. K. Coal Co.....	O. K.....	8,210	8,210	.....	8,210	1,250	.....
Oliver Fuel and Coal P. Co.....	Oliver.....	.....	.....	.....	.....	.....	5,000
Orechio Coal Co.....	Brookside.....	1	15,812	.....	15,812	1,075	.....
Owens & Sons, R.....	Owens.....	364	364	.....	364	50	.....
Palisade Coal & Supply Co.....	Palisade.....	2	1,971	17,729	17,729	5,000	1,200
Palmetto & Son.....	Farner-Mutual.....	.....	5,168	.....	5,168	1,750	.....
Paonia Farmers Coal Co.....	Paonia.....	.....	.....	.....	.....	.....	185
Patton, Lloyd L.....	Red Canon.....	2	2,963	.....	2,963	150	.....
Peerless Coal Co.....	Peerless.....	350	350	1,195	1,545	750	.....
Petry, Sam.....	Willie.....	1,740	1,740	.....	1,740	875	.....
Pikes Peak Fuel Co.....	Pikeview.....	6	98,522	154,532	253,654	.....	.....
Pine River Fuel Co.....	Pine River.....	780	780	.....	780	.....	.....
Pinnacle Kemmerer Fuel Co.....	Wolf Creek.....	1	25,220	.....	25,220	15,800	500
Pittsburg Coal Co.....	Pittsburg.....	1	383	383	383	350	.....
Porter, J. M.....	Fairview.....	100	100	.....	100	.....	2,700
Prairie Canon Coal Co.....	Prairie Canon.....	19,987	19,987	.....	19,987	.....	.....
Prospect Coal Co.....	Prospect.....	650	650	.....	650	350	.....
Purity Coal Co.....	Reliance.....	1	25,829	.....	25,829	.....	2,000
Rapini & Hughes.....	Marion.....	280	280	.....	280	.....	.....
Rapson Coal M. Co.....	Rapson.....	9,656	9,656	6,400	16,056	.....	200
Rauman Coal Co.....	Rauman.....	4,332	4,332	.....	4,332	2,000	200
Reinau, R. C.....	Curtis Creek.....	180	180	.....	180	.....	.....
Rice, Chas. & Sons.....	Pleasant Valley.....	66	66	.....	66	150	.....
Richards C. H.....	Little Bear.....	383	383	.....	383	350	.....
Rifle Coal Co.....	Rifle.....	1,665	1,665	.....	1,665	.....	800

TABLE No. 4—Continued

MINING MACHINES AND EXPLOSIVES USED AT COAL MINES IN THE STATE OF COLORADO FOR YEAR ENDED DECEMBER 31, 1926

Name of Operator	Name of Mine	Mining Machines		Coal Mined by (Short Tons)			Explosives Used (Pounds)		
		No. Operated by Compressed Air	No. Operated by Electricity	Hand	Machine	Total	Black Powder	Dynamite	Permissible
Rifle Coal Mines, Inc.	North Canyon	.....	.....	6,393	.....	6,393	.....	.....	3,000
Riverside Coal Co.	Riverside	.....	.....	3,196	.....	3,196	250	500	.....
Rochio Coal Co.	Rochio	.....	1	.....	2,308	2,308	325	.....	149
Rocky Mountain Fuel Co.	Industrial	.....	7	32,815	70,749	103,564	29,466	90	.....
Rocky Mountain Fuel Co.	Standard	.....	.....	942	58,072	59,014	15,407	.....	695
Rocky Mountain Fuel Co.	Simpson	† 8	.....	44,347	.....	44,347	18,856	.....	.....
Rocky Mountain Fuel Co.	Acme	6	1	27	36,105	36,132	9,788	.....	17
Rocky Mountain Fuel Co.	Vulcan	6	.....	2,156	32,702	34,858	12,887	.....	289
Rocky Mountain Fuel Co.	Gorham	2	.....	2,522	2,364	4,886	851	.....	.....
Rocky Mountain Fuel Co.	Alpine	.....	1	15,312	8,570	23,882	8,035	.....	.....
Rocky Mountain Fuel Co.	Forbes	.....	2	19,505	12	19,517	.....	.....	451
Rocky Mountain Fuel Co.	Southwestern	.....	.....	12,388	.....	12,388	.....	.....	149
Rocky Mountain Fuel Co.	Columbine	.....	8	182,685	198,608	381,293	64,775	.....	38,413
Rocky Mountain Fuel Co.	Grant	.....	5	3,361	98,437	101,798	31,364	.....	.....
Ross Coal Co.	Horace	.....	.....	48,684	.....	48,684	13,775	23,546	44,220
Royal Fuel Co.	Royal	.....	.....	141,779	.....	141,779	.....	126	369
Royal Gorge Coal Co.	Royal Gorge	.....	.....	3,082	.....	3,082	750	300	.....
Royer, J. S.	Royer	.....	.....	194	.....	194	250	.....	.....
Russell Coal Co., W. E.	Russell	.....	3	2,000	69,427	71,427	19,825	200	.....
Santa Fe Coal Co.	Santa Fe	.....	.....	4,555	.....	4,555	.....	.....	350
Service Coal Co.	Service	.....	.....	933	.....	933	1,800	.....	.....
Seven Points Coal Co.	Seven Points	.....	.....	1,973	.....	1,973	.....	25	.....
Shamrock Coal Co.	Shamrock	2	.....	1,973	91,499	91,499	14,625	.....	.....

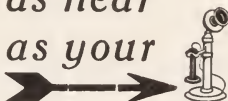
Shew Coal Co.	Fairview	1,142	2,957	1,142	2,275	80	1,142
Sleepy Cat Coal Co.	Sleepy Cat	7,418	7,418	2,957	2,275	80	2,957
South Canon M. L. Co.	South Canon	453	453	7,418	10	10	4,800
Spencer, Geo. S.	Spencer	1,669	1,669	453	1,669	10	100
Stanley, C. O.	Stanley	2,618	2,618	1,669	937	50	500
States-Hall Coal Co.	States	4,004	4,004	2,618	1,875	50	6,852
Stokes, W. D.	Stokes	15,227	31,837	4,004	1,000	24,000	24,000
Sunnyside Coal M. Co.	Sunnyside	8,879	8,879	15,227	1,000	24,000	24,000
Sunshine Coal Co.	Sunshine	37,603	112,810	8,879	1,000	24,000	24,000
Temple Fuel Co.	Brodhead	675	675	37,603	375	600	2,100
Thomas Coal Co.	Franceville	500	500	675	600	2,100	2,400
Thomas Coal Co.	Thomas	8,606	8,606	500	75	2,400	2,400
Three Pines Coal Co.	Three Pines	1,094	1,094	8,606	75	2,400	2,400
Tipotsch, Frank	Tipotsch	8,889	8,889	1,094	75	2,400	2,400
Torrid Coal Co.	Torrid	1,292	1,292	8,889	375	600	2,100
Triangle Coal Co.	Triangle	2,000	2,000	1,292	600	2,100	2,400
Trinidad Coal Co.	Baldy Mt	13,297	24,695	2,000	37,992	200	800
Union Coal & Coke Co.	Pryor	710	710	13,297	500	200	5,000
Ute Coal Co.	Ute	970	970	710	500	200	5,000
Valley View Coal Co.	Valley View	17,898	17,898	970	500	200	5,000
Vesta Mines, Inc.	Vesta	5,765	32,526	17,898	12,000	12,000	12,000
Vickers Coal Co.	Vickers	5,309	32,526	38,291	6,000	6,000	6,000
Victor-American Fuel Co.	Chandler	247,723	159,372	165,281	7,700	7,700	35,350
Victor-American Fuel Co.	Kenwood	108,441	14,501	14,501	7,125	37	761
Victor-American Fuel Co.	Delagua	19,914	136,927	384,650	20,036	20,036	20,036
Victor-American Fuel Co.	Pinnacle	142	44,191	152,632	74,200	50	1,506
Victor-American Fuel Co.	Wadage	8,555	40,541	60,455	22,250	2,242	2,242
Vigil, Jose S.	Vigil	176	142	142	25	50	50
Wellington Mining Co.	Wellington	1,437	8,555	8,555	250	800	800
Whitlock, E. E.	Whitlock	1,437	176	176	250	800	800
Williams Coal Co.	Williams	824	707	1,437	1,250	50	50
Williams, J. A.	Cracker Jack No. 2	824	707	707	300	50	50
Wilton Coal Co.	Pritchard	120	120	824	150	50	50
Winkler, Gus	Missouri	904	904	120	625	50	50
Winton Coal Co.	Winton	495	495	904	200	50	50
Wisconsin Coal Co.	Wisconsin	495	495	495	200	50	50
Totals		5,176,626	5,440,134	10,616,760	1,284,075	53,323	930,844

†No report.

‡Not in use.

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Let us help you with your fuse problems.

## The National Fuse and Powder Company

Denver

Colorado



TABLE No. 6

PRODUCTION AND DISTRIBUTION OF COAL FROM ALL THE MINES  
IN THE STATE OF COLORADO FOR THE YEAR ENDING  
DECEMBER 31, 1926

Total Production Distributed	Loaded at Mines for Shipment	Sold to Local Trade and Used by Employees	Used at Mines for Steam and Heat	Coal Made into Coke	Coke Made
10,616,760	9,476,219	664,016	238,813	*1,324,465	792,517

\*NOTE—237,712 tons of coal were made into coke at the mine and therefore not included in coal loaded at mines for shipment.

Table No. 5 omitted.

ON TOP  
AND  
UNDERGROUND  
**VULCAN**  
HOISTS  
STANDARD OF  
THE WEST  
SINCE 1891  
"  
SCRAPER LOADERS  
MINE FANS  
CAR RETARDERS  
TIMKEN  
ROPE ROLLERS  
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Branch Office at  
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Denver, Colorado

TABLE No. 7  
NUMBER INJURED IN COAL MINES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1926

CAUSES	Permanent Total Disability	Permanent Partial Disability	Temporary Disability		Total Injuries
			Time Lost More Than 14 Days	Time Lost Less Than 14 Days	
<b>Underground—</b>					
1. Falls of roof (coal, rock, etc.)	1	1	223	166	391
2. Falls of face or pillar coal	.....	.....	127	75	202
3. Mine cars and locomotives	.....	5	267	151	423
4. Gas explosions and burning gas	.....	.....	15	1	16
5. Coal-dust explosions (including gas and dust combined)	.....	.....	.....	.....	.....
6. Explosives	.....	2	3	1	6
7. Suffocation from mine gas	.....	.....	1	.....	1
8. Electricity	.....	.....	2	2	4
9. Animals	.....	.....	26	27	53
10. Mining machines	.....	2	58	40	100
11. Mines fires (burned, suffocated, etc.)	.....	.....	.....	.....	.....
12. Other causes	5	5	234	281	520
<b>In Shaft—</b>					
13. Falling down shafts or slopes	.....	.....	1	.....	1
14. Objects falling down shafts or slopes	.....	.....	.....	.....	.....
15. Cages or skips	.....	.....	1	1	2
16. Other causes	.....	.....	1	.....	2
Total number injured in mine	1	15	959	746	1,721
<b>On Surface—</b>					
17. Mine cars and mine locomotives	.....	.....	14	12	26
18. Electricity	.....	.....	2	3	5
19. Machinery	.....	1	13	10	24
20. Boiler explosions or bursting steam pipes	.....	1	3	.....	4
21. Railway cars and locomotives	.....	1	6	8	15
22. Other causes	.....	.....	40	30	70
Total number injured on the surface	.....	3	78	61	142
<b>GRAND TOTAL</b>	1	18	1,037	807	1,863

- A. PERMANENT TOTAL DISABILITY. Loss of both legs or arms, one leg and one arm, total loss of eyesight, paralysis or other condition permanently incapacitating workman from doing any work of a gainful occupation.
- B. PERMANENT PARTIAL DISABILITY. Loss of one foot, leg, hand, eye, one or more fingers, one or more toes, and dislocation where ligaments are severed, or any other injury known in surgery to be permanent partial disability.
- C. In this column include only accidents which cause a loss of time more than the balance of the day or shift upon which the accident occurred.

TABLE No. 8

COAL MINE FATALITIES IN THE STATE OF COLORADO, CLASSIFIED BY CAUSE AND OCCUPATION, FOR YEAR ENDED  
DECEMBER 31, 1926.

CAUSES	UNDERGROUND AND SHAFT															Surface Fatalities	Total Fatalities
	Foreman	Assistant Foreman	Pit Bosses	Pick Miners	Machine Miners	Machine Run- ners and Sappers	Shot Piers	Drivers & Runners	Motor men and Assistants	Doorboys and Helpers	Trackmen and Bratticemen	Timbermen and Rockmen	Pump and Pipemen	Electricians and Helpers	All Others		
<b>Underground—</b>																	
1. Falls of roof (coal, rock, etc.)				7	4	2		1			1					2	17
2. Falls of face or pillar coal			1	4	3											1	9
3. Mine cars and locomotives								5	1	1	1	1				1	10
4. Gas explosions and burning gas																	
5. Coal-dust explosions (including gas and dust combined)	1			1												5	7
6. Explosives																	
7. Suffocation from mine gases																	
8. Electricity (shock or burns)																	
9. Animals																	
10. Mining machines																	
11. Mine fires (burned, suffocated, etc.)																	
12. Other causes															1	1	1
<b>Shaft—</b>																	
13. Falling down shafts or slopes															1	1	1
14. Objects falling down shafts or Slopes															1	1	1
15. Cages or skips															1	1	1
16. Other causes															1	1	1
Total underground	1		1	12	7	2		6	1	1	2	1			14	48	48



[illegible]

\*To be supplied from Table 10.

+Above poll taken December, 1926.

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2. Better preparation of domestic sizes of coal.
3. Reduction of powder costs—overhead expense—screenings.
4. Improvement of roof condition with resultant saving of labor and timber.

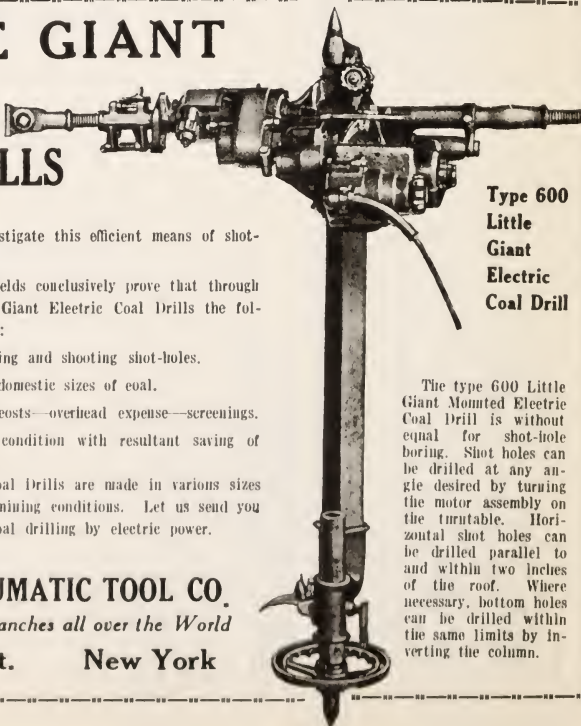
Little Giant Electric Coal Drills are made in various sizes and types to fit any coal mining conditions. Let us send you our complete bulletin on coal drilling by electric power.

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**Type 600  
Little  
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Electric  
Coal Drill**

The type 600 Little Giant Mounted Electric Coal Drill is without equal for shot-hole boring. Shot holes can be drilled at any angle desired by turning the motor assembly on the turntable. Horizontal shot holes can be drilled parallel to and within two inches of the roof. Where necessary, bottom holes can be drilled within the same limits by inverting the column.

TABLE No. 10

COAL MINE EMPLOYEES CLASSIFIED BY OCCUPATION IN THE STATE OF COLORADO DURING YEAR ENDED DECEMBER 31, 1926.

UNDERGROUND		Employed in and around the mines of Colorado
1. Foremen .....		196
2. Assistant foremen .....		68
3. Fire bosses .....		152
4. Pick miners .....		4,121
5. Machine miners .....		3,429
6. Machine runners and scrapers.....		515
7. Shot firers .....		146
8. Drivers and runners .....		828
9. Motormen and assistants.....		214
10. Doorboys and helpers.....		49
11. Trackmen and bratticemen.....		344
12. Timbermen and rockmen.....		364
13. Pumpmen and pipemen.....		108
14. Electricians and helpers.....		108
15. All others .....		483
Total underground .....		11,125
SURFACE		
1. Superintendents .....		127
2. Foremen .....		58
3. Blacksmith and carpenters.....		232
4. Engineers and firemen.....		266
5. Machinists and helpers.....		91
6. Trackmen and helpers.....		33
7. All others at mine.....		1,178
8. Coke-oven employees .....		230
9. Office employees .....		121
Total surface .....		2,336
Total employees .....		13,461
Number of days men worked during year.....		202.9

Table No. 9, omitted is covered by Table No. 8. Applies to Metal Mining.  
Above poll taken in December, 1926.





[illegible]

TABLE A—Continued

COMPANIES	Total Production	Number of Men Employed	Fatal Accidents	Number of Men Employed per Fatal Accident	Number of Tons Produced per Fatal Accident	Number of Non- Fatal Accidents	No. of Men Em- ployed per Non- Fatal Accident	Number of Tons Produced per Non-Fatal Accident	Killed per 1,000 Employed	Injured per 1,000 Employed
Crown Fuel Co.....	27,335	32				6	5.3	4,556		187.5
Cunningham & Elliott.....	150	3								
Davis, T. P.....	4,015	7								
De Boy, Frank.....	312	1								
De Grafenried, J. R.....	100	1								
Dennis & Malone.....	22	1								
Dick Coal Co.....	85,753	100	1	100.0	85,753	5	20.0	17,151	10.0	50.0
Domenico, S. & Sons, Inc.....	16,598	30				9	3.3	1,844		300.0
Domestic Coal Co.....	2,086	7								
Donaldson & Perino.....	4,764	9				1	9.0	4,764		111.1
Double Dick Coal Co.....	14,797	23				3	7.7	4,932		130.4
Drennan Coal Co.....	555	2								
Drott, John H.....	300	1								
Durango Coal Co.....	8,846	17								
Electric Coal Co.....	4,489	9								
Empire Coal M. Co.....	74,740	95	1	95.0	74,740	3	31.7	24,913	10.5	31.6
Eno, C. O.....	2,500	3								
Fairfield, Ed.....	167	1								
Fawcett Coal Co.....	1,026	2								
Fitzsimmons, E. A.....	955	2								
Florida Grange No. 306.....	122	1								
Foreman, Thos. D.....	315	1								
Fraker Coal Co.....	64,121	85	1	85.0	64,121	30	2.8	2,137	11.8	352.9
Franklin Coal Co.....	3,684	9				1	9.0	3,684		111.1
Freeman & Co.....	2,676	3								
Fruth & Stone.....	9,499	30								
Gadberry, R. V.....	363	1								

[illegible]





Company	1945	3	1	2	1.5	773	666.7
Peerless Coal Co.	1,545	3	1				
*Pelley, Carl E.		1					
Petry, Sam	1,740	3					
Pikes Peak Fuel Co.	253,054	187	1	24	7.8	10,544	128.3
Pine River Coal Co.	780	2					
Pinnacle-Kemmerer Fuel Co.	25,220	46	1	9	5.1	2,802	195.7
Pittsburg Coal Co.	383	3					
Porter, J. M.	100	1					
Prairie Canon Coal Co.	19,987	36		5	7.2	3,997	138.9
Prospect Coal Co.	650	6					
Purity Coal Co.	25,829	37		5	7.4	5,166	135.1
*Rapid Creek M. T. & P. Co.		5	1	4	1.3		800.0
Rapini & Hughes	280	2					
Rapson Coal M. Co.	16,056	28		3	9.3	5,352	107.1
Rauman Coal Co.	4,332	6					
Reinart, R. C.	180	1					
Rice, Chas. & Sons	66	1					
Richards, C. H.	383	1					
Rifle Coal Co.	1,665	2					
Riffe Mines, Inc.	6,393	4					
Riverside Coal Co.	3,196	7		3	2.3	1,065	428.6
Rocchio Coal Co.	2,308	10					
Rocky Mountain Fuel Co.	821,679	759	5	148	5.1	5,552	195.0
Ross Coal Co.	48,684	76		6	12.7	8,114	78.9
Royal Fuel Co.	141,779	186	1	15	12.4	9,452	80.6
Royal Gorge Coal Co.	3,082	4					
Royer, J. S.	194	1					
Russell, W. E. Coal Co.	71,427	59		4	14.8	17,857	67.8
Santa Fe Coal Co.	4,555	12					
Service Coal Co.	933	3					
Seven Points Coal Co.	1,973	1					
Shamrock Coal Co.	91,499	59		2	29.5	45,750	33.9
Shew Coal Co.	1,142	2					
Sleepy Cat Coal Co.	2,957	20					
South Canon Mine Leasing Co.	7,418	9	1				111.1
Spencer, Geo. S.	453	1					
Stanley, C. O.	1,669	15					
States-Hall Coal Co.	2,618	4		1	4.0	2,618	250.0
Stokes, W. D.	4,004	6					
Sunnyside Coal M. Co.	47,064	92		4	23.0	11,766	43.5

TABLE A—Continued

COMPANIES	Total Production	Number of Men Employed	Fatal Accidents	Number of Men Employed per Fatal Accident	Number of Tons Produced per Fatal Accident	Number of Non- Fatal Accidents	No. of Men Em- ployed per Non- Fatal Accident	Number of Tons Produced per Non-Fatal Accident	Killed per 1,000 Employed	Injured per 1,000 Employed
Sunshine Coal Co.	8,879	11								90.9
Temple Fuel Co.	150,313	191	1	191.0	150,413	17	11.2	8,848	5.2	89.0
Thomas Coal Co. (El Paso Co.)	675	8								
Thomas Coal Co. (Mesa Co.)	500	2								
Three Pines Coal Co.	8,606	17								
Tipotsch, Frank	1,094	2								
Torrid Coal Co.	8,889	21								
Triangle Coal Co.	1,292	1				2	.5	646		2,000.0
Trinidad Coal Co.	2,000	2								
Union Coal & Coke Co.	37,992	62				1	62.0	37,992		16.1
Ute Coal Co.	710	2								
Valley View Coal Co.	970	1								
Vesta Mines, Inc.	17,898	27				2	13.5	8,949		74.1
Vickers Coal Co.	38,291	63				4	15.8	9,573		63.5
Victor-American Fuel Co.	777,519	990	6	165.0	129,587	280	3.5	2,777	6.1	282.8
Vigil, Jose S.	142	2								
Wellington Mining Co.	8,555	15								
Whitlock, E. E.	176	1								
Williams Coal Co.	1,437	3								
Williams, J. A.	707	10								
Wilton Coal Co.	824	2								
Winkler, Gus	120	1								
Winton Coal Co.	904	2								
Wisconsin Coal Co.	495	2								
Total of the State of Colorado	10,616,760	11,786	52	226.3	204,168	1,863	6.3	5,699	4.2	158.1

\*Above Table shows 18 more men employed than Table B, where the production of mines is given. The Pacific Coal M. Co. and the Rapid Creek M. T. & P. Co. are doing development work only. Bracken & Cozza and Carl P. Pelley mined coal, but the tonnage was not obtainable.



# NATIONAL CARBIDE

**Best** for Miners' Lamps, House Lighting and Cooking, Heating Water, Ironing and for Barns, Poultry Houses, etc.

**Because** it is of Uniform Size—  
Free from Dust—works perfectly in all makes of Carbide Lamps and Generators—gives most gas per pound, and is made of the very finest materials in the most modern plants.

Ask for NATIONAL Carbide

- In the RED Drum
- SAVES You Money

Warehouses from  
coast to coast

National Carbide Sales Corporation,  
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Gentlemen:  
Please send booklet, "The Story of Carbide."  
I am a Carbide user YES.....  
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# DUNCAN

*Foundry and Machine Works*  
ALTON, ILLINOIS

Manufacturers of

Mine cars, roller bearing, self oiling  
and plain wheels, axles,  
self dumping  
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## Blasting and Tamping Tubing For Shot Firing and Rock Dust Stemming

NO LOOSE SEAMS

DOES NOT BULGE

MAKES A SOLID  
RIGID CARTRIDGE



Ideal for Tamping—Makes Lump Coal Easier to Get—  
No Powder Spilled Along Drill Hole—Made in Diameters  
to Suit All Drills—Tubing Marked in Inches—For Use in  
Wet Holes—No Cartridge Stick Needed—Promotes Safety  
in Mines.

**Wheeling Clark Patent Tubing Co.**

3625 McCulloch St.

Wheeling, W. Va.



# HAYDEN COAL

*"The Coal That Cauliflowers"*

**From the Famous Oak Creek District  
Routt County**

Hayden Coal comes from a shaft 350 feet deep and is the only shaft mined coal in Routt County. It is free from crop or surface coal, and shows the highest analysis of any coal from Routt County.

**It Burns Hotter---Lasts Longer**

**Hayden Bros. Coal Corporation**  
Tramway Building, Denver  
C. W. Brown, General Manager



## CARBIDE MINE LAMPS

For operators as well as miners **Justrite** lamps have been made of the best material and workmanship in order that the highest efficiency and best service could be maintained. **Justrite** lamps throw a strong, penetrating light which keeps the miner's efficiency to a high standard and increases his production—naturally the mine output. These are important facts for the operator.

**Safe--Durable--Strong**

**No. 407 Lamp**



With wire feed and 2 1/2" reflector. A sturdy lamp that will always give good results.

**No. 747 Lamp**



Polygon feed lamp with 4" nickel reflector. Gives penetrating light excellent for inspectors and shift bosses.



**No.  
661  
Lamp**

The upright "Victor" lamp for miners who prefer the vertical construction. A strong durable lamp.

*Ask for CATALOG showing all models*

**JUSTRITE MANUFACTURING CO.** 2064-2081 Southport Ave.  
CHICAGO, U. S. A.

TABLE B

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1926, AND CAPACITY OF MINE PER DAY IN TONS.

## ARCHULETA COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine Per Day, Tons
Shamrock (Crane) Co.	Bay & Harper T. L. Cox	Bayfield Pagosa Springs	Sub-bituminous Sub-bituminous	132 125	2 1	671 435	30 -----
Total Number	of Mines Operated: 2			129.7	3	1,106	-----

## BOULDER COUNTY

Industrial	Rocky Mountain Fuel Co.	Superior	Sub-bituminous	178.9	110	103,564	1,000
Standard	Rocky Mountain Fuel Co.	Lafayette	Sub-bituminous	230.5	41	59,014	350
Simpson	Rocky Mountain Fuel Co.	Lafayette	Sub-bituminous	136	31	44,347	350
Acme	Rocky Mountain Fuel Co.	Louisville	Sub-bituminous	116	54	36,132	500
Vulean	Rocky Mountain Fuel Co.	Lafayette	Sub-bituminous	173	38	34,858	500
Gorham	Rocky Mountain Fuel Co.	Gorham	Sub-bituminous	78	12	4,886	200
Monarch No. 2	National Fuel Co.	Broomfield	Sub-bituminous	222.8	153	144,163	725
Centennial	Boulder Valley Coal Co.	Louisville	Sub-bituminous	146.6	107	89,682	600
Crown	Crown Fuel Co.	Gorham	Sub-bituminous	175	32	27,335	300
Black Diamond	Black Diamond Fuel Co.	Boulder	Sub-bituminous	327	20	24,762	175
Paramount	S. Domenico & Sons, Inc.	Louisville	Sub-bituminous	151	30	16,598	200
Capitol	Ajax Coal M. Co.	Louisville	Sub-bituminous	61	24	7,015	100
Cambro	Cambro Coal Co.	Louisville	Sub-bituminous	276	4	2,884	-----
Matchless	Domestic Coal Co.	Gorham	Sub-bituminous	71	7	2,086	50
Peerless	Peerless Coal Co.	Boulder	Sub-bituminous	216	3	1,545	10
Cracker Jack No. 2	J. A. Williams	Boulder	Sub-bituminous	34	10	707	20
Cracker Jack No. 1	Cracker Jack Coal Co.	Gorham	Sub-bituminous	113	1	329	-----
Boulder Black Hawk	Boulder Black Hawk C. Co.	Boulder	Sub-bituminous	63	4	559	-----
Pittsburgh	Pittsburgh Coal Co.	Gorham	Sub-bituminous	120	3	383	-----
Total Number	of Mines Operated: 19			172.4	684	600,849	-----

## DELTA COUNTY

King.....	Juanita Coal & Coke Co.....	Bowie.....	Bituminous.....	83	51	45,336	1,000
Green Valley.....	Green Valley Coal Co.....	Cedaredge.....	Semi-bituminous.....	310	8	5,923	60
Paonia.....	Paonia Farmers Coal Co.....	Paonia.....	Semi-bituminous.....	213.5	3	3,168	50
Red Canon.....	Lloyd T. Patton.....	Cedaredge.....	Semi-bituminous.....	266.8	4	2,363	30
States.....	States-Hall Coal Co.....	Cedaredge.....	Semi-bituminous.....	237	4	2,618	40
Independent.....	Independent Coal Co.....	Cedaredge.....	Semi-bituminous.....	222	4	2,361	20
Gelwick.....	Gelwick Coal Co.....	Paonia.....	Semi-bituminous.....	202.8	3	1,258	15
Berry.....	E. A. Fitzsimmons.....	Paonia.....	Semi-bituminous.....	120	2	955	15
Winton.....	Winton Coal Co.....	Austin.....	Semi-bituminous.....	118	2	904	20
Burdick (Kurtzville).....	Jenkins & Lewis.....	Hotchkiss.....	Semi-bituminous.....	190	2	720	30
Converse.....	Frank Converse.....	Paonia.....	Semi-bituminous.....	150	1	619	10
Rollins.....	McMillin Bros.....	Delta.....	Semi-bituminous.....	64	2	327	20
Owens.....	Rowland Owens & Son.....	Hotchkiss.....	Semi-bituminous.....	120	2	364	10
Bennett.....	Bennett Coal Co.....	Hotchkiss.....	Semi-bituminous.....	90	1	112	20
DeGraffenried.....	J. R. De Graffenried.....	Hotchkiss.....	Semi-bituminous.....	60	1	100	20
Fairview.....	Joe M. Porter.....	Delta.....	Semi-bituminous.....	20	1	100	20
Total Number.....	of Mines Operated: 16.....			136.4	91	69,838	

## DOLORES COUNTY

North Star.....	New Mexico Lumber Co.....	McPhee.....	Semi-bituminous.....	220	11	5,220	100
Total Number.....	of Mines Operated: 1.....			220	11	5,220	20

## ELBERT COUNTY

Burntall.....	Burntall Fuel Co.....	Matheson.....	Sub-bituminous.....	256	3	1,565	100
Wright.....	Wright Barker.....	Matheson.....	Sub-bituminous.....	158	3	1,378	20
Mascot.....	Mascot C. O. & C. P. Co.....	Colorado Springs.....	Sub-bituminous.....	53	2	311	20
Total Number.....	of Mines Operated: 3.....			168.5	8	3,254	20

TABLE B—Continued  
EL PASO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine Per Day, Tons
Pikeview.....	Pikes Peak Fuel Co.....	Pikeview.....	Sub-bituminous.....	212	187	253,054	1,500
City Coal Mines.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	250	69	60,407	500
Corley.....	W. D. Corley.....	Colorado Springs.....	Sub-bituminous.....	260	22	27,492	250
Danville.....	Altitude Coal Co.....	Colorado Springs.....	Sub-bituminous.....	251	11	6,193	35
Altitude.....	Altitude Coal Co.....	.....	Sub-bituminous.....	83	7	702	10
Golden Dawn.....	Golden Dawn Coal Co.....	Yoder.....	Sub-bituminous.....	249	5	2,343	.....
Cottonwood.....	Cottonwood Coal Co.....	Colorado Springs.....	Sub-bituminous.....	287	1	729	3
Franceville.....	Thomas Coal Co.....	Colorado Springs.....	Sub-bituminous.....	76	8	675	20
Drennan.....	Drennan Coal Co.....	Colorado Springs.....	Sub-bituminous.....	176	2	555	.....
Cunningham.....	Cunningham & Elliott.....	Colorado Springs.....	Sub-bituminous.....	76	3	150	.....
Total Number	of Mines Operated: 10.....			218	315	352,300	.....

## FREMONT COUNTY

Coal Creek.....	Colorado Fuel & Iron Co.....	Rockvale.....	Semi-bituminous.....	168.6	231	133,508	800
Rockvale.....	Colorado Fuel & Iron Co.....	Rockvale.....	Semi-bituminous.....	102.5	149	44,990	600
Nonac.....	Colorado Fuel & Iron Co.....	Canon City.....	Semi-bituminous.....	195.5	27	28,818	160
Fremont.....	Colorado Fuel & Iron Co.....	Rockvale.....	Semi-bituminous.....	64.8	110	26,974	500
Chandler.....	Victor American Fuel Co.....	Chandler.....	Semi-bituminous.....	271.4	259	165,281	1,000
Kenwood.....	Victor American Fuel Co.....	Kenwood.....	Semi-bituminous.....	102.8	44	14,501	400
Canon.....	Canon-Reliance Coal Co.....	Canon City.....	Semi-bituminous.....	216.5	69	65,348	450
Brookside.....	Orechio Coal Co.....	Florence.....	Semi-bituminous.....	13	13	15,812	50
Double Dick.....	Double Dick Coal Co.....	Coal Creek.....	Semi-bituminous.....	251	23	14,797	60
Bluff Springs No. 1.....	Guiliano Coal Co.....	Coal Creek.....	Semi-bituminous.....	204	16	5,083	20
Bluff Spring No. 2.....	Bluff Springs Coal Co.....	Florence.....	Semi-bituminous.....	273	23	14,595	60
Griffiths.....	Griffiths Coal M. Co.....	Canon City.....	Semi-bituminous.....	213	11	10,079	60
Brewster.....	Canon Coal Association.....	Florence.....	Semi-bituminous.....	263	19	6,577	50
District Canon.....	Canon District Coal Co.....	Canon City.....	Semi-bituminous.....	248	10	4,252	75
North Magnet.....	Donaldson & Perlino.....	Florence.....	Semi-bituminous.....	252	9	4,764	20



## FREMONT COUNTY—Continued

South Magnet.....	Canon Quality Coal Co.....	Rockvale.....	Semi-bituminous.....	251	11	2,930	50
Jack O' Lantern.....	Canon United Coal Co.....	Canon City.....	Semi-bituminous.....	275	6	3,543	20
Royal Gorge.....	Royal Gorge Coal Co.....	Canon City.....	Semi-bituminous.....	246	4	3,082	20
†Rochio.....	Rochio Coal Co.....	Coal Creek.....	Semi-bituminous.....	80	10	2,508	15
Carbon.....	Carbon Coal Co.....	Florence.....	Semi-bituminous.....	90	7	1,778	50
Willie.....	Sam Petry.....	Florence.....	Semi-bituminous.....	249	3	1,740	25
Mohawk.....	Black Hawk Coal Co.....	Canon City.....	Semi-bituminous.....	123	11	1,471	10
Total Number	of Mines Operated: 22			184.2	1,065	572,631	.....

\*Formerly Florence-Canon  
†Formerly Waldron

## GARFIELD COUNTY

Carbonera.....	Gilson Asphaltum Co.....	Mack.....	Bituminous.....	213.5	10	11,172	60
South Canon.....	South Canon Mine L. Co.....	Glenwood Springs.....	Bituminous.....	213	9	7,418	75
*North Canon.....	Rifle Coal Mines, Inc.....	Rifle.....	Bituminous.....	274	4	6,393	40
Rauman.....	Rauman Coal Co.....	Rifle.....	Bituminous.....	290	6	4,332	25
McLearn.....	Rifle Coal Co.....	Rifle.....	Bituminous.....	213	2	1,665	.....
Ohkraut.....	Frank De Boy.....	Glenwood Springs.....	Bituminous.....	95	1	312	.....
Total Number	of Mines Operated: 6			231.5	32	31,292	.....

\*Formerly "Estes"

## GUNNISON COUNTY

Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	195.2	157	211,758	1,800
Crested Butte.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	275.3	128	120,137	600
Elk Mountain.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Semi-Anthracite.....	241.8	59	43,197	350
Horace.....	Ross Coal Co.....	Crested Butte.....	Anthracite.....	269.8	76	48,584	300
Smith Anthracite.....	Crested Butte Anthracite M. Co.....	Crested Butte.....	Anthracite.....	226	47	36,512	300
Bulkley No. 2.....	Crested Butte Coal Co.....	Crested Butte.....	Bituminous.....	202	50	57,880	400
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	99.2	39	23,882	350
Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	Semi-bituminous.....	177	13	8,228	100
Oliver.....	Oliver Fuel & Coal Prod. Co.....	Somerset.....	Bituminous.....	123	19	8,210	200
Baldwin-Star.....	Baldwin Fuel Co.....	Baldwin.....	Bituminous.....	138	7	5,703	.....
Bonner.....	Bonner Coal Co.....	Gunnison.....	Bituminous.....	85	3	1,346	20
Carbon Creek.....	Carbon Creek Coal Co.....	Baldwin.....	Bituminous.....	158	1	778	.....
Total Number	of Mines Operated: 12			219.1	599	566,315	.....

TABLE B—Continued  
HUERFANO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine Per Day, Tons
Robinson Nos. 1 & 2	Colorado Fuel & Iron Co.	Walsen	Bituminous	227.9	387	393,235	1,800
Cameron	Colorado Fuel & Iron Co.	Farr	Bituminous	212.4	199	219,848	1,200
Lester	Colorado Fuel & Iron Co.	Pictou	Bituminous	223.1	178	140,328	800
Pictou	Colorado Fuel & Iron Co.	Pictou	Bituminous	211.8	160	136,662	800
Ideal	Colorado Fuel & Iron Co.	Ideal	Bituminous	163.3	167	96,278	800
Kebler No. 2	Colorado Fuel & Iron Co.	Tioga	Bituminous	127.5	99	62,268	600
Calumet No. 1	Calumet Fuel Co.	Delcarbon	Bituminous	232.5	156	184,916	1,000
Calumet No. 2	Calumet Fuel Co.	Delcarbon	Bituminous	218.6	61	81,803	500
Alamo	Alamo Coal Co.	Alamo	Bituminous	264	163	105,073	1,000
Oakdale	Oakdale Coal Co.	Oakview	Bituminous	217	104	69,148	400
Barbour	Barbour Coal Co.	Alamo	Bituminous	196	55	18,796	700
Mutual	Mutual Coal Co.	Walsenburg	Bituminous	194.1	98	73,457	500
Ravenwood	Caliente Coal Co.	Ravenwood	Bituminous	217	133	73,280	500
Maitland	Caliente Coal Co.	Maitland	Bituminous	108	64	28,965	350
Toltec	Aztec Coal M. Co.	Toltec	Bituminous	158	103	68,113	500
Gordon	Gordon Coal Co.	Walsenburg	Bituminous	225	82	57,805	350
Sunnyside	Sunnyside Coal M. Co.	Strong	Bituminous	144.6	92	47,064	600
Pryor	Union Coal & Coke Co.	Pryor	Bituminous	157	62	37,992	500
Reliance	Purity Coal Co.	Ojo	Bituminous	241	37	25,829	125
Vesta	Vesta Mines, Inc.	Gordon	Bituminous	179	27	17,898	200
Torrid	Torrid Coal Co.	Rugby	Bituminous	221	21	8,889	100
Caddell	Black Canon Coal & Fuel Co.	Walsenburg	Bituminous	203	22	8,868	100
Leader No. 1	Fruth & Stone	Rouse	Bituminous	60	17	1,594	50
Leader No. 2	Fruth & Stone	Rouse	Bituminous	206	13	7,905	25
Banker Hill	Steve Mattivi & Sons	Rapson	Bituminous	76	13	1,276	25
Black Hills	Black Hills Coal Co.	Tioga	Bituminous	90	3	147	.....
Total Number	of Mines Operated: 26			202.8	2,516	1,967,437	.....

## JACKSON COUNTY

Moore No. 1.....	North Park Coal Co.....	Coalmont.....	Sub-bituminous.....	192	53	56,692	500
Marr.....	O. D. Eno.....	Walden.....	Sub-bituminous.....	150	3	2,500	20
Total Number	of Mines Operated: 2			189.8	56	59,192	

## JEFFERSON COUNTY

Leyden No. 3.....	Leyden Coal Co.....	Leyden via Golden.....	Sub-bituminous.....	164.4	100	99,871	1,000
Christensen.....	Christensen Coal Co.....	Littleton.....	Sub-bituminous.....	194	5	2,545	100
Total Number	of Mines Operated: 2			165.8	105	102,416	

## LA PLATA COUNTY

Perins Peak.....	Calumet Fuel Co.....	Durango.....	Bituminous.....	243	41	36,092	250
San Juan.....	American Smelting & Ref. Co.....	Durango.....	Bituminous.....	285	39	31,639	150
Sunshine.....	Sunshine Coal Co.....	Durango.....	Bituminous.....	198.5	11	8,879	50
*Durango.....	Durango Coal Co.....	Durango.....	Bituminous.....	246	17	8,846	22
Morning-Star.....	Baudino & Co.....	Durango.....	Bituminous.....	217	6	4,634	22
Black Diamond.....	Black Diamond Coal Co.....	Durango.....	Bituminous.....	301	6	4,155	45
O. K.....	O. K. Coal Co.....	Durango.....	Bituminous.....	193	7	3,791	30
Triangle (Graves).....	Triangle Coal Co.....	Durango.....	Bituminous.....	157	1	1,292	30
Tipotsch.....	Frank Tipotsch.....	Hesperus.....	Bituminous.....	140	2	1,094	15
Valley View.....	Valley View Coal Co.....	Mancos.....	Bituminous.....	248	1	970	15
Pine River.....	Pine River Fuel Co.....	Bayfield.....	Bituminous.....	135	2	780	20
G. & G.....	R. V. Gadberr.....	Hesperus.....	Bituminous.....	106	1	363	30
Champion.....	Champion Coal Co.....	Durango.....	Bituminous.....	21	8	241	30
Grange.....	Florida Grange No. 306.....	Taifa.....	Bituminous.....	90	1	122	40
Carbon.....	Carbon Coal Co.....	Durango.....	Bituminous.....	60	1	100	40
Total Number	of Mines Operated: 15			231.1	144	102,998	

\*Formerly New Porter



TABLE B—Continued  
LAS ANIMAS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine Per Day, Tons
Frederick	Colorado Fuel & Iron Co.	Valdez	Bituminous	289	356	488,572	1,800
Morley	Colorado Fuel & Iron Co.	Morley	Bituminous	288.2	358	386,300	1,000
Toller	Colorado Fuel & Iron Co.	Tollerburg	Bituminous	293	218	236,356	850
Tabasco	Colorado Fuel & Iron Co.	Berwind	Bituminous	275.2	202	231,853	1,000
Berwind	Colorado Fuel & Iron Co.	Berwind	Bituminous	284.8	202	229,279	950
Sopris	Colorado Fuel & Iron Co.	Sopris	Bituminous	216.9	225	203,756	926
Primero	Colorado Fuel & Iron Co.	Primero	Bituminous	Clean	up	384,650	2,500
Delagua	Victor-American Fuel Co.	Delagua	Bituminous	207.8	389	244,583	1,500
Boncarbo	American Smelting & Ref. Co.	Cokedale	Bituminous	264	216	141,779	1,100
Royal	Royal Fuel Co.	Agular	Bituminous	185.1	186	116,913	500
Thor	National Fuel Co.	Bowen	Bituminous	266	122	150,413	300
Brodhead No. 9	Temple Fuel Co.	Brodhead	Bituminous	266.5	191	38,291	300
Vickers	Vickers Coal Co.	Rugby	Bituminous	201	63	30,556	1,000
Bear Canon No. 3	Bear Canon Coal Co.	Vallorso	Bituminous	254	36	49,797	450
Bear Canon No. 6	Bear Canon Coal Co.	Vallorso	Bituminous	232.3	57	85,753	600
Dix	Dick Coal Co.	Gordon	Bituminous	230.8	100	77,004	550
Ludlow	Huerfano Coal Co.	Ludlow	Bituminous	178.2	106	74,740	300
Empire	Empire Coal M. Co.	Agular	Bituminous	143	95	51,512	300
Creston	Jewel Collieries Corp.	Agular	Bituminous	241	69	1,918	350
Jewel	Jewel Collieries Corp.	Agular	Bituminous	45	17	12,388	300
Forbes No. 9	Rocky Mountain Fuel Co.	Forbes	Bituminous	112.6	34	19,987	300
Southwestern	Rocky Mountain Fuel Co.	Agular	Bituminous	145.7	29	16,056	100
Prairie Canon	Prairie Canon Coal Co.	Vallorso	Bituminous	219	36	8,606	35
Rapson	Rapson Coal M. Co.	Rapson	Bituminous	174.4	28	5,459	400
Greenville	Cedar Hill Coal & Coke Co.	Ludlow	Bituminous	176.5	16	4,015	35
Three Pines	Three Pines Coal Co.	Vallorso	Bituminous	214	17	8,555	35
Wellington	Wellington Mining Co.	Walsenburg	Bituminous	245	15	4,555	400
Jeffries	Jeffries Fuel Co.	Trinidad	Bituminous	275	15	4,015	35
Santa Fe	Santa Fe Coal Co.	Trinidad	Bituminous	168	12	4,015	35
Engle	T. P. Davis	Trinidad	Bituminous	133	7	4,015	35



## LAS ANIMAS COUNTY—Continued

Baldy Mt.....	Trinidad	Bituminous.....	100	2	2,000	.....
Banner.....	Trinidad	Bituminous.....	130	4	1,952	50
Sherman-Baldy.....	Trinidad	Bituminous.....	218	2	1,862	30
Stanley.....	Boncarbo	Bituminous.....	90	15	1,669	75
Fairview.....	Trinidad	Bituminous.....	213	2	1,142	.....
Fawcett.....	Agular	Bituminous.....	200	2	1,026	35
Pritchard.....	Wilton Coal Co.	Bituminous.....	205	2	824	10
Pickford.....	Boaglio Coal Co.	Bituminous.....	191	1	786	10
Prospect.....	Prospect Coal Co.	Bituminous.....	90	6	650	.....
Beshoar.....	Halbert Coal Co.	Bituminous.....	33	3	338	15
Vigil.....	Jose S. Vigil.....	Bituminous.....	90	2	142	.....
Morris.....	Morris Coal Co.	Bituminous.....	60	1	52	10
Verdun.....	Dennis & Malone.....	Bituminous.....	20	1	22	.....
Total Number	of Mines Operated: 43.....	.....	242.1	3,443	3,299,803	.....

## MESA COUNTY

Cameo.....	Cameo.....	Semi-bituminous.....	236	71	76,368	600
Palisade.....	Palisade.....	Semi-bituminous.....	224	26	17,729	150
Midwest.....	Palisade.....	Semi-bituminous.....	162	24	6,021	200
Stokes.....	Palisade.....	Semi-bituminous.....	212	6	4,004	80
Garfield.....	Palisade.....	Semi-bituminous.....	140	8	3,436	40
Riverside.....	Palisade.....	Semi-bituminous.....	199	7	3,196	40
Winger.....	Palisade.....	Semi-bituminous.....	182	3	3,016	50
Stove Canyon.....	Fruita.....	Semi-bituminous.....	266.3	3	2,603	.....
Farmers-Mutual.....	Grand Junction.....	Semi-bituminous.....	274	3	1,971	15
Nearing.....	Fruita.....	Semi-bituminous.....	188	3	1,663	10
Hidden Treasure.....	Grand Junction.....	Semi-bituminous.....	200	3	1,647	.....
Williams.....	Grand Junction.....	Semi-bituminous.....	206	3	1,437	20
Anchor No. 2.....	Fruita.....	Semi-bituminous.....	174	3	1,381	40
Service.....	Grand Junction.....	Semi-bituminous.....	250	3	933	8
McGinley.....	Grand Junction.....	Semi-bituminous.....	105	2	563	25
Thomas.....	Grand Junction.....	Semi-bituminous.....	90	2	500	30
P. V.....	Palisade.....	Semi-bituminous.....	20	6	333	30
G. & C.....	Grand Junction.....	Semi-bituminous.....	74	2	295	3
Total Number	of Mines Operated: 18.....	.....	203	178	127,096	.....

TABLE B—Continued  
MOFFAT COUNTY

Name of Mine	Name of Company	Mine, Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine Per Day, Tons
Eberle.....	Mt. Evans Fuel Co.	Craig	Bituminous	200	3	2,174	50
Hart.....	Langley & Wolf	Craig	Bituminous	104	3	1,282	40
Ute.....	Ute Coal Co.	Axial	Bituminous	120	2	710	3
Knez.....	Knez Coal Co.	Craig	Bituminous	181	1	620	3
Wisconsin.....	Wisconsin Coal M. Co.	Lay	Bituminous	160	2	495	2
Little Bear.....	C. H. Richards	Craig	Bituminous	130	1	383	.....
Brant.....	Brant Coal Co.	Craig	Bituminous	112	1	356	.....
Whitlock.....	E. E. Whitlock	Hamilton	Bituminous	90	1	176	.....
Total Number	of Mines Operated: 8			141.8	14	6,196	.....

## MONTEZUMA COUNTY

School Sec. Lease.....	Freeman & Co.	Mancos	Sub-bituminous	215	3	2,676	24
Montezuma.....	Montezuma Coal Co.	Cortez	Sub-bituminous	231	5	1,628	10
Cortez.....	Cortez Coal Co.	Cortez	Sub-bituminous	201.5	4	1,399	7
Spencer.....	Geo. S. Spencer	Mancos	Sub-bituminous	170	1	453	.....
Total Number	of Mines Operated: 4			213.5	13	6,156	.....

## MONTROSE COUNTY

Happy Canon.....	Happy Canon Coal Co.	Montrose	Sub-bituminous	116	3	485	.....
Liberty Bell.....	John H. Drott	Nucla	Sub-bituminous	180	1	300	.....
Oberding.....	Wm. J. Oberding	Nucla	Sub-bituminous	90	1	120	.....
Missouri.....	Gus Winkler	Nucla	Sub-bituminous	100	1	120	.....
Pleasant Valley.....	Chas. Rice & Sons	Nucla	Sub-bituminous	39	1	66	3
Total Number	of Mines Operated: 5			108.1	7	1,091	.....

## PITKIN COUNTY

Marion.....	J. R. Marcketti.....	Carbondale.....	Bituminous.....	2	1,869	40
Hughes.....	Wm. Hughes.....	Carbondale.....	Bituminous.....	3	853	.....
Placita.....	Rapini & Hughes.....	Carbondale.....	Bituminous.....	2	280	51
Total Number	of Mines Operated: 3	.....	.....	7	3,002	.....

## RIO BLANCO COUNTY

Oldland.....	Electric Coal Co.....	Meeker.....	Bituminous.....	3	1,996	.....
Black Diamond.....	Electric Coal Co.....	Meeker.....	Bituminous.....	3	1,904	20
Pollard.....	Electric Coal Co.....	Meeker.....	Bituminous.....	3	589	.....
Lion Canon.....	Lion Canon Coal Co.....	Meeker.....	Bituminous.....	2	769	25
Nine Mile.....	Thos. D. Foreman.....	Meeker.....	Bituminous.....	1	315	.....
Fairfield.....	Ed. Fairfield.....	Meeker.....	Bituminous.....	1	167	3
Curtis Creek.....	R. C. Reinau.....	Meeker.....	Bituminous.....	1	180	2
Douglass Creek.....	Jones & Trachta.....	Rangeley.....	Bituminous.....	1	155	.....
McKee.....	Robert McKee.....	Meeker.....	Bituminous.....	1	100	.....
Total Number	of Mines Operated: 9	.....	.....	16	6,175	.....

## ROUTT COUNTY

Oak Hills No. 1.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	118	117,730	2,000
Oak Hills No. 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	113	115,512	2,000
Harris.....	Colorado & Utah Coal Co.....	Mt. Harris.....	Bituminous.....	210	204,213	3,000
Pinnacle.....	Victor-American Fuel Co.....	Oak Creek.....	Bituminous.....	195	152,632	2,000
Wadge.....	Victor-American Fuel Co.....	Mt. Harris.....	Bituminous.....	103	60,455	1,200
Hayden No. 3.....	Hayden Bros. Coal Corp.....	Haybro.....	Bituminous.....	163	124,993	1,200
Bear River.....	Fraker Coal Co.....	Bear River.....	Bituminous.....	85	64,121	700
MacGregor.....	McNeil Coal Co.....	MacGregor.....	Bituminous.....	41	35,408	1,200
Wolf Creek (Regal).....	Pinnacle-Kemmerer Fuel Co.....	Mt. Harris.....	Bituminous.....	46	25,220	300
Keystone.....	Keystone Coal Co.....	Oak Creek.....	Bituminous.....	16	3,487	75
Sleepy Cat.....	Sleepy Cat Coal Co.....	Hayden.....	Bituminous.....	20	2,957	30
Babson.....	Babson Coal Co.....	Hayden.....	Bituminous.....	5	2,917	40
Seven Points.....	Seven Points Coal Co.....	Oak Creek.....	Bituminous.....	1	1,973	50
Butcher Knife.....	Butcher Knife Coal Co.....	Bear River.....	Bituminous.....	6	1,967	20
MacCroskey.....	Amos Coal Co.....	MacGregor.....	Bituminous.....	2	1,850	50
Mutual.....	A. C. Linn & Sons.....	Hayden.....	Bituminous.....	2	904	.....
Arthur.....	Arthur Coal Co.....	Oak Creek.....	Bituminous.....	1	770	20
Chergo.....	Tom Chergo.....	Oak Creek.....	Bituminous.....	1	265	20
Block.....	Block Coal Co.....	Steamboat Springs.....	Bituminous.....	3	243	10
Total Number	of Mines Operated: 19	.....	.....	1,131	917,717	.....

TABLE B—Continued  
SAN MIGUEL COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine Per Day, Tons
Keck.....	W. R. Keck.....	Norwood.....	Sub-bituminous.....	197	2	587	8
Gray.....	L. J. Gray.....	Norwood.....	Sub-bituminous.....	120	1	266	.....
Royer.....	S. J. Royer.....	Norwood.....	Sub-bituminous.....	90	1	194	1
Total Number	of Mines Operated: 3.....	.....	.....	151	4	1,047	.....

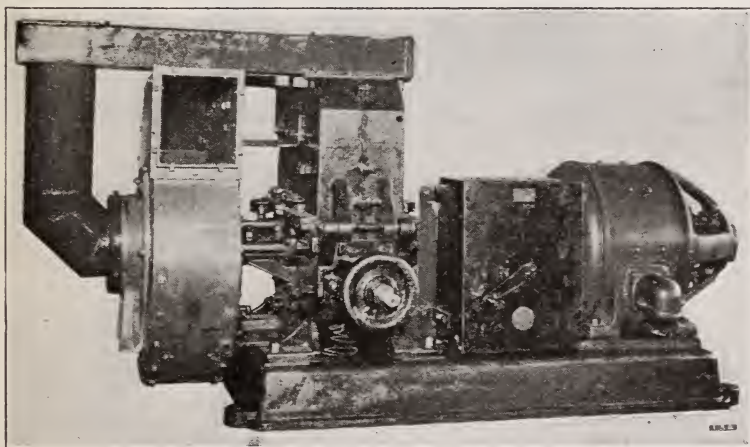
## WELD COUNTY

Columbine.....	Rocky Mountain Fuel Co.....	Serene.....	Sub-bituminous.....	293	298	381,293	2,500
Grant.....	Rocky Mountain Fuel Co.....	Frederick.....	Sub-bituminous.....	158	73	101,798	1,000
Puritan.....	National Fuel Co.....	Dacona.....	Sub-bituminous.....	247	191	304,209	1,900
Clayton.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	291.5	211	302,605	2,000
Boulder Valley.....	Boulder Valley Coal Co.....	Erie.....	Sub-bituminous.....	189.3	140	222,843	1,600
Baum.....	Consolidated Coal & Coke Co.....	Dacono.....	Sub-bituminous.....	165.2	85	134,280	1,000
Sterling.....	Grand Junction M. & F. Co.....	Dacono.....	Sub-bituminous.....	166	80	104,271	2,000
Shamrock.....	Shamrock Coal Co.....	Frederick.....	Sub-bituminous.....	194.4	59	91,499	600
Evans or (Liley).....	Liley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	257.5	69	84,953	500
Frederick.....	Liley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	56	28	8,023	250
Russell.....	W. E. Russell Coal Co.....	Frederick.....	Sub-bituminous.....	221.2	59	71,427	600
Witherbee.....	Franklin Coal Co.....	Fort Lupton.....	Sub-bituminous.....	259	9	3,684	30
Eureka.....	Hunziker & Hodge.....	Frederick.....	Sub-bituminous.....	49	24	3,244	.....
Total Number	of Mines Operated: 13.....	.....	.....	232.8	1,326	1,813,629	.....
Total Number	of Mines Operated in	Colorado: 261.....	.....	202.9	11,768	10,616,760	.....



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Producers of High Grade  
BITUMINOUS  
**C-O-A-L**



Rock Dusting Machine in Use at Royal Mine  
(Patented)

Royal Coal is hand mined by experienced miners and  
is not shattered by blasting.  
Royal Coal has a low ash and low moisture content.  
Royal Coal will store indefinitely without deterioration.

GENERAL OFFICE  
DENVER, COLORADO

TABLE C  
PRODUCTION OF COUNTIES BY MONTHS—1926

Month	Archuleta	Boulder	Delta	Dolores	Elbert	El Paso
January	.....	77,276	7,132	.....	513	43,881
February	.....	55,201	4,310	.....	211	33,380
March	.....	58,738	3,477	.....	253	37,203
April	13	41,691	2,953	.....	97	28,284
May	24	20,817	2,550	.....	21	19,425
June	16	17,591	1,959	.....	25	15,740
July	10	19,107	3,206	.....	16	16,207
August	62	35,735	3,876	.....	24	15,079
September	79	67,417	7,363	.....	76	22,843
October	233	65,633	8,155	.....	226	31,340
November	154	61,846	11,103	.....	345	40,854
December	515	79,797	13,754	5,220	1,447	48,064
Totals	1,106	600,849	69,838	5,220	3,254	352,300

Month	Fremont	Garfield	Gunnison	Huerfano	Jackson	Jefferson
January	72,556	3,355	45,875	197,000	5,777	11,859
February	31,372	2,502	42,200	99,026	4,852	9,182
March	30,010	2,195	36,065	110,530	5,142	10,458
April	56,922	2,088	38,397	150,261	3,948	8,374
May	39,670	1,775	38,526	110,749	2,203	5,945
June	28,550	1,704	37,656	118,417	1,927	5,652
July	37,322	1,566	45,208	143,425	1,654	5,795
August	41,689	2,055	50,844	163,638	2,901	5,603
September	49,915	2,551	59,210	169,729	4,922	7,886
October	57,621	3,798	57,398	202,507	8,421	8,835
November	66,377	4,151	57,565	244,526	7,399	10,155
December	60,627	3,552	57,371	257,629	10,046	12,672
Totals	572,631	31,292	566,315	1,967,437	59,192	102,416

Month	La Plata	Las Animas	Mesa	Moffat	Montezuma	Montrose
January	10,153	290,902	11,842	617	950	19
February	7,873	246,342	8,882	485	610	132
March	7,640	270,809	7,760	306	496	82
April	7,107	262,536	6,683	186	276	15
May	7,715	242,537	6,463	180	256	.....
June	6,699	247,351	6,388	125	272	67
July	7,188	239,853	7,438	50	125	30
August	8,185	274,840	9,245	74	332	48
September	9,655	285,320	14,579	295	397	67
October	10,722	290,599	16,866	610	687	.....
November	11,150	311,285	14,914	687	713	.....
December	8,911	337,429	16,036	2,581	1,042	631
Totals	102,998	3,299,803	127,096	6,196	6,156	1,091

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	199	1,001	80,768	.....	221,690	1,083,665
February	62	583	44,508	.....	159,087	750,800
March	22	399	49,322	.....	161,900	792,807
April	63	330	84,660	.....	111,965	806,849
May	51	227	59,260	.....	62,380	620,774
June	.....	191	46,237	.....	57,308	593,875
July	67	171	77,203	.....	62,654	668,295
August	178	235	73,364	.....	84,562	772,569
September	441	497	80,961	.....	158,872	943,075
October	513	316	100,945	.....	195,068	1,060,493
November	653	857	93,325	.....	243,267	1,181,326
December	453	1,368	127,164	1,047	294,876	1,342,232
Totals	3,002	6,175	917,717	1,047	1,813,629	10,616,760

TABLE D

SHOWING INCREASE AND DECREASE BY COUNTIES, 1925-1926

Counties	Tons Produced 1925	Tons Produced 1926	Increase	Decrease
Archuleta .....	1,307	1,106	.....	201
Boulder .....	615,943	600,849	.....	15,094
Delta .....	73,483	69,838	.....	3,645
Dolores .....	.....	5,220	5,220	.....
Elbert .....	2,008	3,254	1,246	.....
El Paso .....	330,228	352,300	22,072	.....
Fremont .....	647,198	572,631	.....	74,567
Garfield .....	31,273	31,292	19	.....
Gunnison .....	518,813	566,315	47,502	.....
Huerfano .....	2,141,224	1,967,437	.....	173,787
Jackson .....	63,221	59,192	.....	4,029
Jefferson .....	103,348	102,416	.....	932
La Plata .....	105,245	102,998	.....	2,247
Las Animas .....	3,018,164	3,299,803	281,639	.....
Mesa .....	137,381	127,096	.....	10,285
Moffat .....	7,937	6,196	.....	1,741
Montezuma .....	8,047	6,156	.....	1,891
Montrose .....	2,013	1,091	.....	922
Ouray .....	892	.....	.....	892
Pitkin .....	5,994	3,002	.....	2,992
Rio Blanco .....	5,384	6,175	791	.....
Routt .....	1,006,390	917,717	.....	88,673
San Miguel .....	793	1,047	254	.....
Weld .....	1,614,101	1,813,629	199,528	.....
Totals.....	10,440,387	10,616,760	.....	.....

Increase, 1926.....176,373

TABLE E

COKE PRODUCED IN 1926 BY COMPANIES AND COUNTIES

Companies	Total No. of Ovens Used	Total Tonnage	Counties	Total No. of Ovens Used	Total Tonnage
American Smelting and Refining Co.....	264 ½	126,986	La Plata .....	27 ½	15,119
Colorado Fuel and Iron Co. ....	336	665,531	Las Animas .....	453	184,459
			Pueblo .....	120	592,939
Totals.....	600 ½	792,517		600 ½	792,517

## REMARKS:

Average number of days worked at the coke ovens..... 348  
Average number of men employed at the coke ovens..... 230  
Number of tons of coal made into coke.....1,324,465

TABLE F  
SHOWING BY COUNTIES COAL PRODUCTION OF 1926 IN PREPARED SIZES

Counties	Mine Run	Lump	Nut	Pea	Slack	Total Tons
Archuleta	639	378				1,106
Boulder	75,868	228,671	54,837	1,312	89	600,849
Delta	8,080	34,133	13,694	765	240,161	69,838
Delores	5,220				13,166	5,220
Elbert	1,716	915	375		248	3,254
El Paso						
Fremont	79,684	94,010	41,676	357	136,553	352,300
Garfield	57,437	212,924	87,960		154,310	572,631
Gunnison	17,750	6,612	4,690	593	1,647	31,292
Huerfano	414,564	96,949	29,641		25,161	566,315
	466,251	676,811	286,392	261,412	276,571	1,967,437
Jackson						
Jefferson	6,922	18,786	14,469		19,015	59,192
La Plata	31,131	24,211	5,330	390	41,354	102,416
Las Animas	85,460	6,521	2,997	1,185	6,835	102,998
Mesa	1,214,184	421,324	208,394	322,659	1,133,242	3,299,803
	60,298	31,334	6,343	2,132	26,984	127,096
McFrat						
Montezuma	3,967	1,289	302		638	6,196
Montrose	1,293	3,657	54		1,152	6,156
Pitkin	843	209	15		24	1,091
Rio Blanco	3,062					3,062
	622	3,624	1,347		582	6,175
Routt						
San Miguel	151,470	424,398	114,269	20,469	207,111	917,717
Weld	681	333			33	1,047
	110,769	765,516	200,558	54,733	628,053	1,813,629
Totals	2,797,851	3,112,605	1,073,368	666,007	2,966,929	10,616,760

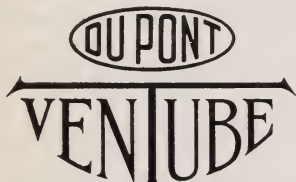
\*85,196 tons Anthracite and 43,197 tons Semi-anthracite coal included.

NOTE.—In the Slack, some mines include Pea and other Nut and Pea coal. The Egg and Grate coal is included in the Nut coal. (The Egg and Grate coal reported is from Boulder, Las Animas, Routt and Weld Counties.)



COAL PRODUCTION OF COLORADO FROM 1873 TO 1926,  
INCLUSIVE

Year	Tons	Year	Tons
1873.....	69,977	1900.....	5,495,734
1874.....	87,372	1901.....	6,021,405
1875.....	98,838	1902.....	7,522,923
1876.....	117,666	1903.....	7,775,302
1877.....	160,000	1904.....	6,776,551
1878.....	200,630	1905.....	8,989,631
1879.....	322,732	1906.....	10,308,421
1880.....	375,000	1907.....	10,965,640
1881.....	706,744	1908.....	9,773,007
1882.....	1,161,479	1909.....	10,772,490
1883.....	1,220,593	1910.....	12,104,887
1884.....	1,130,024	1911.....	10,197,595
1885.....	1,398,796	1912.....	11,016,948
1886.....	1,436,211	1913.....	9,268,939
1887.....	1,791,735	1914.....	8,201,423
1888.....	2,185,477	1915.....	8,715,397
1889.....	2,400,629	1916.....	10,522,185
1890.....	3,075,781	1917.....	12,515,305
1891.....	3,512,632	1918.....	12,658,055
1892.....	3,771,234	1919.....	10,406,543
1893.....	3,947,056	1920.....	12,514,693
1894.....	3,021,028	1921.....	9,141,947
1895.....	3,339,495	1922.....	10,003,610
1896.....	3,371,633	1923.....	10,336,735
1897.....	3,565,660	1924.....	10,501,088
1898.....	4,174,037	1925.....	10,440,387
1899.....	4,826,939	1926.....	10,616,760



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**S Y M E S  
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## MINE DISASTERS AND MISCELLANEOUS FATAL ACCIDENTS, 1926

---

### REPORT OF EXPLOSION AT THE BEAR CANON MINE No. 3, ON JANUARY 29, 1926

The mine is located  $2\frac{1}{2}$  miles southwest of Berwind on the C. & S. R. R., Las Animas County, Colo. Operated by the Bear Canon Coal Co., Trinidad, Colo. There were 34 men in the mine at the time of the explosion; three were killed instantly, seven burned, one of whom died later. The mine is opened by two drifts, in the upper series; character of coal, bituminous; height of coal, 4 feet. Ventilated by one 6-foot Jeffrey fan, single port of entry. Fan exhausting. Mine ventilated by two separate splits and worked by open lights, and classified as non-gaseous.

The mine was opened in 1919, continued in operation until 1923, when closed down for a period of  $2\frac{1}{2}$  years, reopening in November, 1925. During the closed period of the mine, a new slope was driven from the surface due south, to intersect the 5th and 6th west entries.

On January 30th, accompanied by Hugo H. Machin, Deputy Inspector; David Griffith, Mutual Insurance Inspector; Chas. Beuchat, General Manager; Jas. McKeown, Superintendent of both mines No. 3 and No. 6, and also mine foreman of No. 3, and Wm. MacGregor, fireboss. We entered the mine by the new slope and examined all the workings in that district which had been working immediately prior to the explosion, and found no explosive gas. Continuing the examination of the workings which had been temporarily closed for a period of  $2\frac{1}{2}$  years, we came to the 2nd east entry, where apparently three company men were removing material at the time of the explosion. At this point, between rooms 1 and 2, found track tools and discovered a considerable body of explosive gas, thus prohibiting further examination at this time.

On February 4th, accompanied by Messrs. Griffith, McKeown, McGregor, Denny, and Marshall of the Bureau of Mines, Deputy Inspector Machin, and Chief Inspector Dalrymple, I inspected mine No. 3, and reached the face of 2nd east entry without finding any indications of gas. Upon entering 1st east entry through the last crosscut, gas was found about twenty feet inside of this point. Retreating, we then entered 1st east entry from the lower end, encountering gas at lower room necks, thus preventing further exploration of this section for the time being.

Again on February 8th, accompanied by Messrs. McKeown and Wm. Gold, the latter had in the meantime been put on as mine foreman in No. 3 mine, I examined all the abandoned workings in the 1st east entry, including rooms and pillars, and found them all clear. So far as accessible no new caves were found.

If the three men whose bodies were found in the 2nd east district were sent into this district to work on January 29, 1926, the fireboss should have known it so that a proper examination by him could have been made before the men entered. The fact that he did not know, shows lack of discipline and supervision by mine foreman. Failure to connect 1st and 2nd east entries before stopping them also shows lack of supervision by whoever was mine foreman at that time. Failure to crosscut the rooms on the 5th and 6th west, and 3rd and 4th south entries driven since the last state inspection shows a disposition to violate the law on the part of the company, as well as the mine foreman.

On February 4th, several safety lamp tests were made at the face of 2nd west entry without finding any trace of gas ( $\text{CH}_4$ ). See samples of air attached, taken at this point on above date:

Laboratory No. 43.219-43.220			Ethane ( $\text{C}_2\text{H}_6$ ).....	
Carbon dioxide ( $\text{CO}_2$ ).....	.14	.12	Hydrogen sulphide ( $\text{H}_2\text{S}$ ).....	
Oxygen ( $\text{O}_2$ ).....	20.65	20.68	Unsaturated hydrocarbons ( $\text{C}_2\text{H}_4$ , etc.).....	
Carbon monoxide ( $\text{CO}$ ).....	.00	.00	Sulphur dioxide ( $\text{SO}_2$ ).....	
Methane ( $\text{CH}_4$ ).....	.47	.49	.....	
Hydrogen ( $\text{H}_2$ ).....	.00	.00	.....	
Nitrogen ( $\text{N}_2$ ).....	78.74	78.71	.....	
Total.....			.....	

It is the opinion of the writer that a coal company employing a man to superintend two mines half a mile apart, and producing jointly 460 tons of coal daily, and also act as mine foreman at one of those mines, and another man to act as mine foreman at one of these mines, and fireboss at the other, has no conception of a day's work, and in doing so they are not working for the best interests of anyone connected with coal mining.

There being no fresh falls in 1st east, inclines me to believe that the accumulation of gas causing explosion had been in existence for some time prior to the explosion, and that it was brought out into contact with the naked lights on 2nd east either by a fall of roof occurring in the inaccessible working of the 1st east, or by a derangement in the ventilation. If this be true, it is apparent that the caved works in 1st east were not examined weekly as required by law, again showing laxity in supervision by the mine foreman.

The above inspections bring forth the following facts:

That three men were working in 2nd east section at the time of the explosion; that the 1st and 2nd east workings were not examined by fireboss before the other employes entered on January 29, 1926; that the 1st east entry had been advanced a considerable distance beyond 2nd east entry, which was 48 feet in advance of last crosscut with no crosscut at face; that several rooms on 5th and 6th west entries and on 3rd and 4th south entries since my last inspection had been put in operation and had been driven from 80 to 175 feet without any crosscuts to connect them; that the face of 2nd east entry was dated January 27, 1926, by mine foreman,

Jas. McKeown; that if coal mines are to be classified as gaseous and non-gaseous, the approved flame safety lamp should not be used as the instrument in determining the classification (see air samples); that Mr. McKeown was employed as Superintendent at No. 6 and No. 3 mines, and also as mine foreman at No. 3 mine; that so far as accessible no fresh falls had taken place in 1st east workings.

This is the second explosion inside of a week in Colorado, both of them caused by open lights being used in what is classified as non-gaseous mines. How many more such experiences are going to be necessary in order to prohibit open lights in the coal mines of this state? Personally, I am opposed to open lights in any coal mine, and I hope that our recent and costly experiences will be the means of securing the co-operation of the coal operators in prohibiting open lights in any of our coal mines.

It is to be regretted that competition for business is so great, or that the question of costs is such, that any coal company will attempt to start and finish rooms without crosscuts between state inspections.

On account of the coarseness of the coal dust and the amount of inert material present, coal dust played but a small part in the explosion.

Through their failure to drive crosscuts at the proper time and examine the mine as provided by law, the company and mine foremen are held responsible for the explosion. The following is a list of dead:

Tony Vegeris, age 45 years, married, one child, Greek; wife, Lula Vegeris, Bear Canon.

Jim Kontogianes, age 46 years, married, Greek, three children; wife, Olympa Kontogianes, Bear Canon.

Christ Karmos, age 35 years, married, four children, Greek; wife, Maggie Karmos, Bear Canon.

Abe Cattani, age 44 years; injured and died later.

(Signed) W. M. LAURIE,  
Deputy Inspector, Dist. No. 1.

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Lafayette, Colo., Feb. 17, 1926.

James Dalrymple, State Inspector of Coal Mines,  
Room 414 State Office Building,  
Denver, Colorado.

Dear Sir:

On January 23, 1926, an explosion occurred at the Harvey Gap mine some time between 9:30 and 10:00 a. m.

This property is located four miles north of Silt, a small station on the D. & R. G. W. railroad. The property is owned by the Colorado Fuel & Iron Co., and was operated by Daniel Bracken, under a lease.



Seam worked is known as the Anderson, and is seven feet in height, pitching about 56 degrees. Rooms are driven up the pitch, a chute is carried in the center of the rooms, with a manway on each side.

The mine was naturally dry and dusty, sometimes gas was detected by officials, but in all my visits to this mine I never detected any. When coal is being withdrawn from the chutes there is considerable fine coal dust thrown into the mine air, and deposited in different parts of the mine. A sprinkling system was installed some time ago, but not often used. Coal dust was a very prominent factor in the explosion.

A fire broke out in the mine soon after the explosion. When I visited the mine the day after the explosion, accompanied by Mr. R. Prendergast and his brother, also Mr. W. E. Dickson, inspector for the Associated Insurance Companies, smoke was issuing from two openings at the top of the mountain.

From the indications at the portal of the main entry, the force of the explosion was outward.

Mr. Bracken and the horse he was driving were blown about 300 feet from the mine opening.

William Cook, a boy of about eight years of age, who came to the mine with his father for a load of coal, and who was standing about 300 feet from the mine opening, was killed, he being in direct line of the explosion. His father was slightly bruised. Their team and wagon were blown about fifty feet into a gulch.

Mr. Otten, the miner, was found dead at his working place, his body was badly burned.

On Tuesday morning, January 26th, accompanied by James Dalrymple, State Inspector of Coal Mines, and W. E. Dickson, Inspector for the Insurance Companies, we entered the mine, traveled along the main entry to room No. 8 or No. 9, where we found a fall of rock and coal on fire and which closed the entry. This looked as though it might have slid down from the room. There was no evidence of extreme violence or intense heat at this point; the only evidence of this kind was at and near the mouth of the main opening.

The testimony given at the inquest and also obtained by me proves beyond a doubt that Mr. Bracken did not examine the mine regularly each morning before the men entered, and that the mine had not been sprinkled for two months.

The explosion was the result of a naked light coming in contact with explosive gas.

Daniel Bracken is held responsible for the explosion because of his failure to properly examine and wet down the mine.

(Signed) JAS. W. GRAHAM.  
District No. 4, Deputy Inspector.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE  
COAL MINES OF COLORADO DURING THE YEAR 1926

January 11—MIKE STEPAN, SR., Austrian, pick miner, experience 25 years, age 43 years, married, six children, employed by The Crested Butte Coal Co., at the Bulkley No. 2 mine, Gunnison county, was injured November 27, 1925, and died on the above date. Deceased was shoveling coal into a car when a piece of rock fell from the roof, striking him on the head, shoulders and back, knocking him down. He probably fell on a sharp piece of coal, hurting his stomach. His injuries were not serious at first and he worked until January 4, 1926, and was taken violently ill in the mine on that day and died on the above date. The accident was unforeseen and is classed as "unavoidable." The cause of death was debatable, but was finally decided by the State Industrial Commission as due to the injuries sustained, and the insurance was allowed his family. The settlement of this case by the Industrial Commission delayed the writing of this accident and the charging it to the industry.

January 16—JOHN GARCIA, Mexican, machine miner, experience 18 months, age 24 years, single, employed by the Bear Canon Coal Co., at the Bear Canon No. 6 mine, in Las Animas county, was killed by a fall of rock. Deceased and partner were loading a car in a room when a rock gave way on the right side of the place, striking him so severely that he died in a few hours. The place was well timbered, and accident was unforeseen, and is not charged to negligence on part of anyone concerned.

January 19—TOM KARMOS, Greek, pick miner, experience 36 years, single, employed by the Bear Canon Coal Co., at the Bear Canon mine, in Las Animas county, was killed by a fall of rock. Deceased and his partner were drawing a pillar when a rock fell out of the roof from between two props set about 18 inches from face of pillar. Between the two props, which were three feet apart, there was a slip which was invisible. The pillar all across the face was well timbered, and the accident is classed as "unavoidable."

January 23—DAN BRACKEN, American, mine foreman and part leasor, experience 25 years, age 58 years, married, two children, and,

ERNEST OTTEN, American, pick miner, experience 10 years, age 39 years, married, two children, employed by Bracken & Cozza, and,

WILLIAM COOK, American, a child of 8 years old, who was with his father who was getting a load of coal from the mine. The boy and his father were 250 feet from the opening of the mine, but in the direct path of the force of the explosion. The boy was killed instantly and the father severely injured.

It is believed that Otten, who went into the mine about 9:30 A. M. with his carbide lamp, ignited a body of gas, and, as the

mine was full of dust, caused a general explosion and killed him and Bracken and the little boy outside. From evidence obtained, the explosion was the result of negligence on part of Bracken, who did not examine the mine for gas before starting to work and allowed an accumulation of inflammable gas to gather. The mine took fire immediately after the explosion and exact details as to where the initial point of the explosion was could not be determined as it was impossible to get into the mine. See detailed report in the Annual Report of 1926.

January 29—TONY VERGIS, Greek, age 45 years, married, one child,

JIM KONTOGIANES, Greek, age 46 years, married, 3 children,

CHRIST KARMOS, Greek, age 35 years, married, 4 children, and,

ABE CATTANI, Italian, widower, 3 children, age 44 years, all employed by the Bear Canon Coal Co., at the Bear Canon No. 3 mine in Las Animas county, were killed by a gas explosion. The explosion occurred in old workings which had been idle for two and one-half years, where three company men were supposed to be removing rails and mine cars. It appears that two of the men reached this point about 10 o'clock in the morning, and came in contact with a body of gas and ignited it with their open lights. No examination had been made of this part of the mine prior to the men going in. The fire boss claims he was not notified that men were working in that district as it had been shut down for a long period. It was considered old workings and was examined once a week only. This mine was considered non-gaseous as no gas had ever been detected. The cause of the accumulation of gas is not known, possibly a cave on some of the pillars was responsible. There were 34 men in the mine when the explosion occurred. Three were killed instantly, and seven burned, one of which died a few days later. Since the last inspection of the mine by the Department, rooms were advanced 80 to 175 ft. without being connected by cross cuts, a clear violation of the law. On account of the coarseness of the coal dust and the amount of inert material present, coal dust played a small part in the explosion. The management, in failing to drive cross cuts and examine the mine, must be held responsible for the explosion.

February 4—FRANK GONZALES, Mexican, pick miner, experience 7 years, age 29 years, married, 1 child, employed by The Rocky Mountain Fuel Co. at the Columbine mine, Weld county, was killed by a fall of coal and rock. The height of the coal where the accident occurred in 71½ feet and deceased was taking down the top coal when a large piece came down, striking deceased before he could get away and killing him instantly. The place had been examined by the mine foreman ten minutes prior to the accident and deceased was ordered to take down the top coal which he was



carrying out. The accident was unforeseen and no one is held responsible for it.

February 12—JESUS BERUMEN, Mexican, pick miner, experience 9 years, age 32 years, single, employed by The Empire Coal Mining Co. at the Empire mine, Las Animas county, was killed by a trip jumping the track and knocking out a prop which struck deceased on the head, fracturing his skull, causing his death a few hours later. Deceased's partner was at the hoist waiting for the signal to be given by deceased to lower an empty trip so that switching could be done. Deceased was standing below the frog of the switch on the crib side, where the bell line was installed, when the trip was lowered, two of the front cars left the rails at the frog, striking a prop which was used in connection with the bell line, knocking it out with the above stated disastrous results. The accident was a misadventure incidental to the hazards of this kind of work.

February 27—RAY COSTOR, American, day man, experience 8 years, age 32 years, married, two children, employed by The Rapid Creek Mining, Tunnel & Power Co., at the Genter mine, Gunnison county, was killed by a fall of roof. The accident occurred at the face of an entry. Four shots had been fired at noon and the mine foreman, after he returned from his lunch, examined the roof and found water dripping down, although the roof sounded solid with no indications of looseness, but he decided to set cross bars. While he and deceased, with two other men, were making hitches in each rib to set the cross bars, a large slab of rock fell from the roof, striking deceased and killing him instantly. The roof showed a smooth slip running parallel for about ten feet with the entry. It is possible had two or three center props been set before starting to cut into the ribs to set the cross bars, the accident might have been avoided. However, the preparations were being made to secure the roof and the accident is classed as unavoidable.

March 2—HARRY KOCHANOWSKY, Pole, machine miner, experience 4 years, age 26 years, married, one child, employed by The American Smelting & Refining Co., at the Boncarbo mine, Las Animas county, was killed by a fall of rock. Accident occurred at the face of a pillar, where deceased was loading coal when he released a piece of draw slate, which gave way from a slip that had not been discovered. The place was well timbered and deceased considered a good workman. The accident was unforeseen and is classed as unavoidable.

March 5—PONCIANO HERNANDEZ, Mexican, machine miner, experience 8 years, age 35 years, single, employed by The Colorado Fuel & Iron Co., at the Pietou mine, Huerfano county, was killed by a fall of rock from the roof. From the evidence given, it appears that the accident was due to the hazard of the work for which no one could be held responsible.



March 9—JOHN B. STRETZ, German, oiler, experience 37 years, age 64 years, married, five children, all of age, employed by The Rocky Mountain Fuel Co., at the Acme mine, Boulder county. was injured by a cage striking him, at the bottom of the shaft, on January 28, and died on the above date. The accident occurred a few minutes before quitting time and a number of men were waiting at the bottom of the shaft to be hoisted to the surface. Deceased was also waiting and either became confused and stumbled into the shaft or crossed over to get the cage from the north side and was caught by it before he was able to get out of the way. Deceased had worked at the bottom of the shaft a number of years and he was known to cross over the shaft to go to the north side, but he always used the run-around. The accident was a misadventure for which no one could be held responsible.

March 9—ALEX MORRISON, American, driver, experience 11 years, age 23 years, employed by The Royal Fuel Co., at the Royal mine, Las Animas county, was killed by being run over by a loaded car. Deceased was taking a four-car trip down a slant to an outby parting of the slope. Evidently he was riding on the bumpers of the front car when he was thrown off by a sudden jerk of the trip and before he could get out of the way was run over. There was a good clearance between the track and the rib, and the track was in a good condition. Deceased was considered a good driver with a lot of experience in that kind of work. It was a misadventure for which no one can be blamed.

March 23—ELMER O. STEWART, American, cager, experience 7 years, age 23 years, single, employed by The National Fuel Co. at the Monarch No. 2 mine, Boulder county, was killed by a piece of coal falling on him in the shaft. Deceased was pushing a truck load of timbers off the cage when he was struck. The coal had been hoisted about an hour before and no doubt, in lowering the timbers, the coal was disturbed, causing a piece to fall down. The accident could have been avoided had the bonnets been put back in place after the shaft timbers were lowered.

March 24—CASEMARO LUJON, Spaniard, machine miner, experience 30 years, age 47 years, married, two children, employed by The Dick Coal Co., at the Dix mine, Las Animas county, was killed by a fall of coal. Deceased was working along the rib to the back of a cut when a piece of coal off the shot coal gave way. The accident was unavoidable.

April 8—CHARLES H. STOLL, American, cager, experience 2 years, age 31 years, married, two children, employed by The Victor-American Fuel Co., at the Chandler mine, Fremont county. was injured on the 7th of April by rock or coal falling down the shaft. He was caging at the bottom of the shaft when a piece of rock or coal fell through an eight inch space between the bonnet of the cage and the shaft lining and struck him on his head, fracturing his skull and causing death on the above date. The accident was unforeseen and is classed as "unavoidable."

April 12—ANDRES ALVARADO, Mexican, pick miner, experience 6 years, age 39 years, married, six children, employed by the Calumet Fuel Co., at the Calumet No. 1 mine, Huerfano county, was killed by a fall of rock. Deceased and his partner were extracting pillars, the place was well timbered, but an invisible slip was running along the line of face and released a slab of drawslate which fell on Alvarado, killing him instantly. The accident was unforeseen and is classed as "unavoidable."

April 22—OLIVER EVANS, American, machine miner, experience 3 years, age 42 years, single, employed by the Boulder Valley Coal Co., at the Boulder Valley mine, Weld county, was crushed to death under a loaded car of coal. Deceased was standing on an empty track of the parting when a driver came down the entry with his mule and loaded car. Arriving near the double parting, the driver warned deceased to look out, but the mule increased his speed and the driver neglected to, or was unable to throw the latch over the switch point, and the result was that the car came down the empty track instead of turning into the loaded track. Deceased was knocked down and the car ran over him. He died shortly afterwards. The responsibility of the accident rests on the driver in failing to throw the latch for the loaded track and partly on deceased in being on the parting 1,500 feet away from his working place.

May 12—JOHN PINTER, Austrian, pick miner, experience 15 years, age 49 years, single, employed by The Caliente Coal Co., at the Ravenwood mine, Huerfano county, was killed by a fall of rock. There was no eye witness to the accident, but from an examination of the place, it appears that deceased had mined some coal off the rib and thereby exposed an invisible slip in the roof, releasing a rock between the props and the face, which fell on him, killing him instantly. The accident is classed as unforeseen, yet might have been avoided had the mine foreman, who had marked the slab that fell as dangerous, warned deceased.

May 12—JOHN PERNE, Austrian, machine miner, experience 17 years, age 41 years, married, one child, employed by the Gordon Coal Co., at the Gordon mine, Huerfano county, was killed by a fall of rock. Deceased was in an entry on his way to work when he was caught by a fall of rock giving way from an invisible slip in the roof. The entry was well timbered, the slip fell out between two cross bars. The accident was unforeseen and therefore unavoidable.

May 25—A. J. LEBLOW, American, timberman, experience 25 years, age 45 years, married, one child, employed by The National Fuel Co., at the Thor mine, Las Animas county, was killed by being caught between a chain pillar and car. Deceased and his partner were timbering on the 1st west slope. A trip passed them and deceased left his partner and went to the 3rd south switch, while there, the trip returned and caught him. The trip presumably was set for the 5th south, and some one must

have set the switch for the 3rd south. Deceased was the only one around the switch and whether he changed it or not, is not known. The accident was a misadventure for which no one is held responsible.

May 28—R. C. CLEMENTS, American, fire boss, experience 14 years, age 33 years, married, no children, and,

RADI TEPOVAC, Servian, pick miner, experience 17 years, age 45 years, single, both employed by The Colorado Fuel & Iron Co., at the Robinson No. 2 mine, Huerfano county, were killed by falls of rock. Clements was making his morning examination of the mine as fire boss. He reported an entry pillar as working. The miners assigned to this district, were instructed to stay out of the place until another examination had been made. Clements was sent back and was caught by a fall of rock while he was making the second examination. His legs were pinned under the rock and he could not extricate himself and called for help, and, while his rescuers were trying to release him, a second fall took place causing his death, and that of Radi Tepovac, who was trying to rescue Clements. The other men escaped uninjured. The accident was unavoidable.

May 29—OSCAR HILL, Finlander, rollerman, experience 23 years, age 43 years, married, three children, employed by The Calumet Fuel Co., at the Somerset mine, Gunnison county, was found dead on the main slope. The cause of death is unknown as there was no evidence of a rock or coal fall and there were no wires on the side of the track where he was found. The only injury on him was the large toe of his right foot broken and almost cut off, but how it happened, could not be ascertained.

No fatal accidents in June, 1926.

July 15—OTIS C. MORRIS, American, driver, experience 16 years, age 40 years, married, five children, employed by The National Fuel Co., at the Puritan mine, Weld county, was killed by being run over by one or more loaded cars. Deceased had gathered a five-car trip of coal and had set sprags under the wheels of the front car, because a few feet ahead there was a dip of about eight per cent. He stated that when he got on the bumpers of the front car, the mule started down the hill and, when the trip was moving along, the mule lunged backwards. In his effort to get out of the way of the mule, his foot slipped off the car and he fell with one leg under the car. He did not state how many cars ran over his leg before he managed to get it out from between the wheels. He called for help and was taken to a hospital, but was so seriously hurt that he died on the same day of the accident. The accident was a mischance due to the danger of the calling.

July 20—JOSEPH C. HAMLIN, American, trapper, experience 1 year, age 22 years, single, employed by The Victor-American Fuel Co., at the Chandler mine, Fremont county, was killed



by a runaway trip. A trip of empty cars was going down the main slope and became uncoupled, allowing 19 cars to run wild down to the first west parting, where men were permitted to wait for the man trip. Here the trip left the track and caught deceased, who was sitting near there and killed him. The management of the mine is held responsible for the accident by allowing the men to congregate on the main slope parting to wait for the man trip and not furnishing a proper waiting place clear of the haulage hazard.

August 2—CECILIO PALAFOS, Mexican, machine miner, experience 13 months, age 28 years, married, no children, employed by the Calumet Fuel Co., at the Calumet No. 2 mine, Huerfano county, was killed by a fall off roof. The accident was due to the inexperience of the deceased. A previous cut had exposed a well defined slip in the roof and which had been secured by a prop under it. Deceased was preparing to drill a rib hole at this point and found that the prop interfered with the setting of the drilling machine, where he thought it should be. Sitting down under the slip, he took a pick and knocked out the prop, thus releasing the rock, which fell on him and killed him.

August 2—WILLIAM ELLIS, American, master mechanic, experience 7 years, age 48 years, married, three children, employed by the Fraker Coal Co., at the Bear River mine, Routt county. Deceased had taken some machine repairs into the mine in an empty mine car pulled by a horse. When ready to come out, the mine foreman allowed him to attach the horse to a loaded car so that he could ride to the outside. The grade is about 2 to 2½% and they only used one sprag. As the car came to the surface, the horse ran away and Ellis tried to get off, but was caught and dragged about ten feet and so badly crushed that he died immediately. The accident was due to the negligence of the mine foreman, who violated the Coal Mining Laws when he permitted an inexperienced man to bring a loaded car from the mine.

August 7—THOMAS R. BROWN, American, utility man, experience 40 years, age 54 years, married, no children, employed by the Calumet Fuel Co., at the Calumet No. 2 mine, Huerfano county, was killed by a cave of roof. Deceased and another man were pulling props in a room pillar. They left two rows of props between them and the row pulled, then came back and were preparing to set an anchor post to pull the next row, when the roof gave a sudden break, swinging out the remaining 18 props and letting it cave down on deceased, killing him instantly. The accident was unforeseen and is classed as unavoidable.

August 30—J. N. NAHAY, American, machine miner, experience 16 years, age 38 years, single, employed by the Pikes Peak Fuel Co., at the Pikeview mine, El Paso county, was killed by a fall of face coal. At the time of the accident, deceased was undermining a piece of coal at the face which had not been knocked out



by the shot, but loosened to some extent. He either saw or heard the coal giving way and, in trying to get out of the way, he stumbled and fell over some loose coal lying on the floor close to where he was working. He was caught in the fall and so severely injured that he died a few hours later. The place was well timbered and the accident, from all appearances, was unavoidable.

August 31—W. A. GLEASON, American, teamster, no experience in coal mines, age 65 years, married, no children, was hauling coal from the South Canon mine, operated by the South Canon Mine Leasing Co., Garfield county, was killed by falling off his wagon. He had loaded a wagon of coal from the chute and drove a short distance to the scale to have his load weighed. In some way one of the wheels dropped into the scales, throwing him off the wagon and injuring him so seriously that he died a short time after. The accident was a misadventure for which no one could be held responsible.

September 24—WILLIAM H. HUNTER, American, rope rider, experience 15 years, age 28 years, single, employed by The Victor-American Fuel Co., at the Chandler mine, Fremont county, was killed under a trip of loaded cars. He was riding a trip of cars in an entry over which a span of rock extended halfway, the other half had been shot down. The jagged end of the rock caught the lamp and cap of deceased and tore off his battery from his belt. He tried to get off in the darkened entry on the bell wire side and, as there was no clearance on either side, he fell under the moving cars and was run over. Had a clearance space been provided, as required by law, the accident would have been avoided.

October 7—A. W. THIMMIG, American, driver, experience several years, age 22 years, single, employed by the Pinnacle-Kemmerer Fuel Co., at the Wolf Creek mine, Routt county, was killed by a fall of rock. The accident occurred in an entry which was well timbered on each side of the fall of rock. A cross bar had been loosened by a shot in the opposite entry the night before. While several men were busy replacing the cross bar, a pot rock, surrounded by a water slip, fell from the roof, striking deceased. The accident might have been avoided had a temporary prop been set.

October 15—DOMINICK LARGO, Italian, experience 10 years, age 26 years, single, employed by The National Fuel Co., at the Monarch No. 2 mine, Boulder county, was crushed to death between the wheels of a loaded car. Deceased was driving a loaded car, and, as he turned a curve into a haulage way, he was thrown off the front end of the car and caught between the car wheels and crushed. There was no eye witness to the accident to state how it happened. There is sufficient clearance on either side of roadway. The accident was a misadventure for which no one could be held responsible.

October 23—FELIX MAES, Mexican, rope rider, experience 12 years, age 30 years, married, three children, employed by The Colorado Fuel & Iron Co., at the Kebler No. 2 mine, Huerfano county, came to his death by being pinned between a car and rib. Deceased was on a parting standing on an empty track between four empty cars. A loaded trip derailed at the parting frog, struck the empty cars and catching deceased, pinned him between one of the cars and rib. He sustained such serious injuries that he died shortly after. The accident was a misadventure and no one is held responsible for it.

October 28—JOSEPH COTTON, American, rockman, no experience in coal mines, age 24 years, married, two children, employed by the Pacific Coal M. Co., at the Caddell mine, Huerfano county, was killed by falling off a skip which was used for hauling men out of the slope. Deceased and his partner were inside a skip, which was being drawn up a slope, when, by some mishap, he fell out or was drawn over the top of the skip and rolling under it was killed. His partner had his back to the deceased and did not see how the accident happened; however, it was unforeseen and is classed as unavoidable.

November 14—FRANK A. OWENS, American, stable boss, experience 9 years, age 30 years, married, three children, employed by the Rocky Mountain Fuel Co., at the Alpine mine, Gunnison county, came to his death by falling down the shaft. The opening of the shaft is guarded by a gate equipped with a spring latch. It appears that deceased, on approaching the gate, reached for the latch and lost his balance and fell between the gate and the cage. A witness stated that it was the practice of the men to throw the latch and open the gate, then jump off the cage before it came to a standstill. Probably this was what Owens tried to do and it resulted fatally for him. The management should prohibit the custom of the men to jump off the cage before it comes to a complete standstill.

November 24—LOUIS SCHENAR, Bohemian, tracklayer and timberman, experience 31 years, age 51 years, widower, no children, employed by the Rocky Mountain Fuel Co., at the Southwestern mine, Las Animas county, was killed by a fall of rock. The accident occurred on a haulageway where there had been a fall the night before. Deceased had cleaned up the fall and then notified the rope-rider, who was working at another point, that the place was ready for him to remove some cars. He then returned to the place and fifteen minutes later the rope-rider found him lying dead under a large rock. Apparently deceased was cleaning up some small debris from under a car wheel, and, while in this act, a rock gave way from the lip of the roof, which extended over the cars, and struck him, killing him instantly. The deceased was known to be a careful workman and the accident was a misadventure, for which no one can be held responsible.

November 25—WILLIAM T. TAYLOR, American, laborer, no experience, age 77 years, married, five adult children, employed by The Victor-American Fuel Co., at the Pinnacle mine yard, Routt county, was killed by being run over by a switch engine. He was cleaning the track at the lower end of the yard when a switch engine ran over him. There was a blinding snow storm and he did not see the switch engine in time to get out of its way.

November 27—O. S. SCHOOLER, American, company man, no experience in coal mines, age 26 years, single, employed by the Barbour Coal Co., at the Barbour mine, Huerfano county, was killed by a fall of rock. Deceased and four other men were cleaning up a fall in an entry. All were men with less than a year's experience in coal mines. The mine foreman examined the roof and found it loose, but left the men to finish the fall without giving orders for propping or timbering the loose roof. Consequently another fall occurred and struck deceased, killing him instantly. The accident was due to lack of supervision by the mine foreman and he is charged with its responsibility.

December 2—C. B. FERGUSON, American, trackman, experience 10 years, age 58 years, widower, seven children, employed by The Victor-American Fuel Co., at the Chandler mine, Fremont county, was injured November 26, by a trip of cars and died on above date. Deceased was looking for ties in the 5th pannel of the 1st west entry, when he was struck by a runaway car. It appears that the rope rider cut off the car before he had thrown the latches and the car took the wrong track and derailed, pinning deceased under it, where he was found some twenty minutes later with a fractured skull, from the effects of which he died six days later. The responsibility is placed to the negligence of a co-worker and partly to a defective switch.

December 14—RUDOLPH SPORCICH, Austrian, pick miner, experience 17 years, age 39 years, single, employed by The Colorado Fuel & Iron Co., at the Toller mine, Las Animas county, was killed by a fall of rock. Deceased and his partner were mining a skip along a slant under a draw slate about two feet thick. They had mined two feet all along the slant when the drawslate gave way, falling on deceased, killing him instantly. No coal had been mined from under the drawslate, the rock being flush with the face of the coal, consequently no props could be set. The accident was unforeseen and is classed "unavoidable." It is possible, however, had the mine foreman instructed deceased to put up a sprag until the rock could be propped, the accident might have been averted.

December 15—GEORGE MOSKWA, American, motorman, experience 22 years, age 37 years, married, five children, employed by The Temple Fuel Co., at the Brodhead No. 9 mine, Las Animas county, was injured December 14 by being caught between the top of a storage battery motor and roof, and died on the above date. Deceased was motorman of a trolley motor and was riding with



the motorman of a storage battery motor on the morning of the accident to get his trolley motor which was left on an entry the day before. While going under a low place the shoulder of the deceased was pushed against the roof, drawing his body partly on top of the motor, causing such serious injuries that he died the following day. The accident was due to the hazard of the work and no one can be blamed.

December 17—JOE CIPOLLINA, Italian, shot firer and machine runner, experience 11 years, age 35 years, married, no children, employed by the Rocky Mountain Fuel Co., at the Alpine mine, Gunnison county, was killed by a fall of drawslate. Deceased with a helper, had cut for a cross cut. He was taking his jack pipe down, and, while lifting the chain to put on the wheel, a piece of drawslate, four feet wide, six feet long, and six inches thick, fell on his back, badly crushing him, from the effects of which he died a few hours later. Before he started to cut, he tested the roof and warned his helper to keep away from under the rock. He evidently knew that it was unsafe and he should have taken it down or propped it before he began to cut the coal. The accident can be chartered to the negligence of deceased, who was an experienced miner, and realized the danger for he warned his helper.

December 20—CARL E. PELLE, American, farmer, no experience in coal mining, age 35 years, married, one son, was killed by a rock slide. Deceased had a permit from the State Land Board to mine coal for his own use from a strip pit on state land. It is the practice in this vicinity for the farmers to come to this pit and mine their own coal. The seam is about six feet thick and every man who goes after this coal strips enough off to get his load. In this instance, the ground was frozen and probably the jarring of the shot and the heat of the sun, loosened the dirt and rock, and a slide followed. A rock fell on deceased, but did not touch his fourteen-year-old son, who was helping him. The boy was alone and endeavored to get his father from under the rock by hitching it to the team waiting to be loaded. The rock could not be moved this way and he had to call help from quite a distance before the body of deceased could be released. The accident is charged to gross negligence in issuing a permit to an inexperienced man and to the ignorance of deceased to the danger of this kind of work.

December 20—JOSEPH A. COWAN, JR., American, machine helper, experience 2 years, age 19 years, single, employed by The Victor-American Fuel Co., at the Kenwood mine, Fremont county, was killed by a fall of rock. Deceased was helping his brother and they had cut the coal in a room and he was putting skids under the machine to pull it back when a rock gave way from a slip between timbers. The roof had been tested before they started to work by his brother and he detected no loose rock and the slip was not visible. The accident was unforeseen and is classed as "unavoidable."



December 22—ELMER A. RAY, American, pick miner, experience 2 years, married, no children, age 26 years, employed by the Butcher Knife Coal Co., at the Butcher Knife mine, Routt county, was killed by a fall of rock. Deceased was in the act of setting props, but there was an invisible slip between the props he had put up and it gave way, falling on him and killed him instantly. An effort was made to make the place safe and the accident cannot be charged to one's negligence.

December 23—MARTIN KURETICH, Austrian, pick miner, experience 25 years, age 53 years, married, four children, employed by the Juanita Coal & Coke Co., at the King mine, Delta county, was struck by an empty rope trip and killed. The rope rider passed deceased on the main slope, who said he was sick. The rope rider went into the top mine to signal the hoistman to pull up the trip to the top mine, for which he had thrown the switch. As the trip did not come up after several signals had been given, he went out onto the main slope to see what was wrong and found deceased dead between the wheels of the second car. It was against the rules for men to walk on the slope as a manway was provided for them. Also, there was a clearance of three feet on both sides of the track. As there was no eye witness to the accident and he had stated that he was sick, he probably lost his bearing and stumbled and was caught by the trip. The responsibility cannot be placed on anyone as there was nothing to point to any negligence on part of the mine management.

SECURE  
MINING MEN  
THRU  
EMPLOYMENT EXPERTS



EST. 20 YRS.

MINE FOREMEN  
FIRE BOSSES  
SURVEYORS  
MINE ELECTRICIANS  
MASTER MECHANICS

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LIST OF SUCCESSFUL CANDIDATES WHO PASSED THE  
EXAMINATION FOR COAL MINE OFFICIALS,  
JUNE 3, 4 AND 5, 1926

**First Class Mine Foreman**

Cert.	No.	Name	Address
	46-26	Adair, William .....	Ludlow, Colo.
	63-26	Arnoldi, Pete .....	Ideal, Colo.
	10-26	Arnott, Joe M.....	Crested Butte, Colo.
	53-26	Ballantyne, Gilbert .....	Aguilar, Colo.
	77-26	Bertotti, James A.....	Boulder, Colo.
	6-26	Bodnar, Joe .....	Frederick, Colo.
	14-26	Campbell, Robert J.....	Cedaredge, Colo.
	61-26	Dale, John .....	Brodhead, Colo.
	8-26	Davis, John William.....	Ideal, Colo.
	16-26	Dawe, Clifford .....	Valdez, Colo.
	19-26	Dowds, Hugh .....	Durango, Colo.
	90-26	Ellis, Elmer .....	Louisville, Colo.
	72-26	Fiorina, Adolph A.....	Rockvale, Colo.
	27-26	Fuller, Elmer .....	Kenwood, Colo.
	70-26	Gieser, W. C.....	Bowen, Colo.
	60-26	Godfrey, Richard .....	Cameo, Colo.
	97-26	Hallett, Carl T.....	Alamo, Colo.
	99-26	Harris, Clarence E.....	Erie, Colo.
	5-26	Hennau, Emil .....	Mt. Harris, Colo.
	28-26	Hill, John W.....	Delagua, Colo.
	35-26	Hughes, Carl G.....	Durango, Colo.
	44-26	Immordino, Joe .....	Trinidad, Colo.
	12-26	Johnson, Henry C.....	Mt. Harris, Colo.
	102-26	Kos, Pete.....	Walsen, Colo.
	25-26	Langowski, Alexander J.....	Sopris, Colo.
	4-26	Langowski, Charles .....	Sopris, Colo.
	49-26	Lloyd, John G.....	Farr, Colo.
	69-26	Madone, Dominic .....	Rockvale, Colo.
	62-26	Marcketti, J. R.....	Carbondale, Colo.
	51-26	Marshall, Wm. ....	Toltec, Colo.
	80-26	Musgrove, J. F.....	Meeker, Colo.
	36-26	Oberding, Wm. J.....	Nucla, Colo.
	65-26	O'Donnell, David .....	Denver, Colo.
	76-26	Perino, Lawrence .....	Florence, Colo.
	38-26	Pierce, Thomas G.....	Durango, Colo.
	89-26	Potter, Parley .....	Valdez, Colo.
	37-26	Rees, John .....	Florence, Colo.
	48-26	Roberts, William .....	Durango, Colo.
	59-26	Boddy, J. J. ....	Cameo, Colo.
	42-26	Savio, Gaetano .....	Sopris, Colo.
	85-26	Smith, Matthew .....	Rockvale, Colo.
	52-26	Traeger, John .....	Englewood, Colo.
	103-26	Weiler, Jake .....	Erie, Colo.
	74-26	Zontine, Joseph .....	Rockvale, Colo.

**First Class Assistant Mine Foreman**

47-26	Falgien, John .....	Coal Creek, Colo.
45-26	Jarrett, Stanley M.....	Gallup, New Mexico

**Fire Boss**

2-26	Bannecks, K. N.....	Delcarbon, Colo.
94-26	Berardi, Steve .....	Coal Creek, Colo.
57-26	Bowman, Archibald .....	Morley, Colo.
88-26	Bonelli, Joseph .....	Boulder, Colo.
11-26	Boulton, Arthur .....	Somerset, Colo.
57-26	Bowman, Archibald .....	Morley, Colo.
101-26	Canton, Trevor .....	Canon City, Colo.
64-26	Christy, James S.....	Aguilar, Colo.
100-26	Conway, Frank .....	Cortez, Colo.
26-26	Costa, Charles .....	Bowen, Colo.
1-26	Cregger, Duard .....	Carbonera, Colo.
32-26	Crist, Cunico .....	Sopris, Colo.
18-26	Dahl, Arthur .....	Sopris, Colo.
91-26	Delisa, Frank P.....	Rockvale, Colo.
92-26	Delisa, James .....	Florence, Colo.
87-26	Delisa, Rosario .....	Rockvale, Colo.
41-26	Fawcett, Leslie .....	Aguilar, Colo.
3-26	Godfrey, Melvern J.....	Crested Butte, Colo.
93-26	Graham, Mathew D.....	Florence, Colo.
81-26	Haldeman, J. F.....	Bayfield, Colo.
50-26	Hale, Athel J.....	Aguilar, Colo.
82-26	Hay, James W.....	Coal Creek, Colo.
84-26	Hood, Walter A.....	Durango, Colo.
34-26	Howell, Richard .....	Cokedale, Colo.
29-26	Kilpatrick, James C.....	Aguilar, Colo.
86-26	Kitto, Edward .....	Coal Creek, Colo.
15-26	Laberau, Ernest .....	Cokedale, Colo.
20-26	Laiminger, Alfred S.....	Sopris, Colo.
21-26	Luerras, Daniel .....	Serene, Colo.
31-26	Luerras, David C.....	Serene, Colo.
23-26	Liddle, Thomas .....	Louisville, Colo.
58-26	Lippis, Ben R.....	Canon City, Colo.
22-26	McCargish, Ed. ....	Alamo, Colo.
83-26	McGeechan, Thos. C.....	Lester, Colo.
79-26	McIntyre, John .....	Aguilar, Colo.
33-26	Manka, Frank .....	Walsenburg, Colo.
40-26	Martinez, Fred .....	Walsenburg, Colo.
98-26	Minnehan, Leo V.....	Lafayette, Colo.
43-26	Moberly, John Clifford.....	Rouse, Colo.
66-26	Montgomery, James .....	Rouse, Colo.
71-26	Moschetti, Louis D.....	Canon City, Colo.
75-26	Peduzzi, Joseph .....	Ideal, Colo.
39-26	Riva, James .....	Durango, Colo.
78-26	Santarelli, Joseph F.....	Florence, Colo.

73-26	Sartoris, John A. ....	Rockvale, Colo.
96-26	Scavarda, John .....	Sopris, Colo.
95-26	Schwartz, Joseph L. ....	Coal Creek, Colo.
24-26	Schwartz, Louis L. ....	Coal Creek, Colo.
30-26	Scollick, George .....	Florence, Colo.
9-26	Smith, Willie Herd .....	Morley, Colo.
55-26	Smith, William .....	Trinidad, Colo.
56-26	Stokes, W. D. ....	Palisade, Colo.
67-26	Wallace, Clyde A. ....	Rouse, Colo.
68-26	Williams, J. A. ....	Boulder, Colo.
7-26	Yedrosich, Sam .....	Rapson, Colo.
54-26	Zimlock, Andy .....	Glenwood Springs, Colo.

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